

1916.  
—  
QUEENSLAND.

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# ANNUAL REPORT

OF

# THE COMMISSIONER OF PUBLIC HEALTH.

TO

30<sup>TH</sup> JUNE, 1916.

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PRESENTED TO BOTH HOUSES OF PARLIAMENT BY COMMAND.

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BRISBANE :  
BY AUTHORITY : ANTHONY JAMES CUMMING, GOVERNMENT PRINTER,  
—  
1916.

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ANNUAL REPORT OF THE COMMISSIONER  
OF PUBLIC HEALTH.

TO THE UNDER SECRETARY, HOME DEPARTMENT.

28th August, 1916.

SIR,—I have the honour to furnish the following particulars concerning the work of the Department under my control for the year ending 30th June, 1916, together with comments relative to the public health of the State of Queensland.

STATISTICAL.

The estimated mean population for 1915 was 687,010, as against 674,932 for 1914, which shows an increase of 12,078. The crude birth rate (births per 1,000 of the mean population) for 1915 amounted to 29.35, as against 29.46 for the preceding year. This compares favourably with other countries appearing in the following table, compiled from the latest figures available:—

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.
Queensland .. .. .	1915	29.35
Commonwealth .. .. .	1915	27.25
Netherlands .. .. .	1913	28.1
New Zealand .. .. .	1914	26.0
Norway .. .. .	1913	25.2
Scotland .. .. .	1913	25.5
Switzerland .. .. .	1912	24.1
England and Wales .. .. .	1913	23.9
Ireland .. .. .	1913	22.8
Canada .. .. .	1913	24.0
France .. .. .	1913	19.0
German Empire .. .. .	1912	28.3

The crude death rate (deaths per 1,000 of mean population) for 1915 was 11.00; this compares favourably with the other Australian States and is one of the lowest death rates in the world, as will be seen by the following summary:—

DEATH RATE.

Country.	Death Rate.	Year.
Canada .. .. .	12.7	1913
Norway .. .. .	13.2	1913
Denmark .. .. .	12.5	1913
Sweden .. .. .	13.6	1913
Netherlands .. .. .	12.3	1913
England and Wales .. .. .	13.7	1913
Scotland .. .. .	15.5	1913
Switzerland .. .. .	14.1	1912
Ireland .. .. .	17.1	1913
France .. .. .	17.7	1913
Italy .. .. .	18.2	1912
German Empire .. .. .	15.6	1912

The infantile mortality rate (deaths under one year per 1,000 born) for 1915 was 64.33, a slight increase on the figures furnished for the previous year.

The following table of rates of infantile mortality shows Queensland to be one of the lowest of the various countries quoted:—

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Infant Mortality Rate per 1,000.
Queensland .. .. .	1915	64.33
New South Wales .. .. .	1915	67.67
Victoria .. .. .	1915	68.78
South Australia .. .. .	1915	67.04
West Australia .. .. .	1915	66.54
Tasmania .. .. .	1915	72.37
Sweden .. .. .	1911	72
Ireland .. .. .	1913	97
Switzerland .. .. .	1912	94
Denmark .. .. .	1913	94
Scotland .. .. .	1913	110
France .. .. .	1912	78
Canada .. .. .	1913	117
England and Wales .. .. .	1913	108
Belgium .. .. .	1912	120
Netherlands .. .. .	1913	91
Italy .. .. .	1912	130
German Empire .. .. .	1912	147

The marriage rate for 1915 was 8.93. This is slightly higher than for the previous year (8.73), and higher than that of any other year since 1873 (9.5).



The following table, supplied by the Government Statistician, summarises the principal vital statistics for Queensland for the last decade:—

SUMMARY OF PRINCIPAL VITAL STATISTICS OF QUEENSLAND FOR DECADE 1906-1915.  
(Furnished by Government Statistician.)

	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
1. Estimated Mean Population ..	532,783	541,204	555,171	571,044	592,201	614,352	631,577	652,555	674,932	687,010
2. Number of Births ... ..	14,019	14,542	14,828	15,554	16,173	16,991	18,758	19,747	19,883	20,163
Rate per 1,000 Mean Population ...	26·31	26·87	26·71	27·24	27·31	27·66	29·70	30·26	29·46	29·35
3. Deaths under 1 Year ... ..	1,047	1,122	1,043	1,119	1,020	1,112	1,340	1,249	1,270	1,297
Rate per 1,000 Born ... ..	74·7	77·2	70·3	71·9	63·1	65·44	71·44	63·25	63·87	64·33
4. Deaths all Ages ... ..	5,095	5,599	5,680	5,530	5,145	6,544	6,921	6,783	6,731	7,559
Rate per 1,000 Mean Population ...	9·56	10·35	10·23	9·68	9·70	10·65	10·96	10·39	9·97	11·00
5. Deaths in Public Institutions ...	1,565	1,744	1,796	1,705	1,865	2,127	2,270	2,344	2,414	2,873
6. Number of Marriages ... ..	3,588	4,105	4,009	4,512	4,769	5,169	5,628	5,662	5,895	6,135
Rate per 1,000 of Mean Population	6·73	7·58	7·22	7·95	8·05	8·41	8·91	8·68	8·73	8·93

#### COMMUNICABLE DISEASES.

Particulars as to the incidence of infectious diseases notified during the year in the Brisbane metropolitan area appear in Appendix I., whilst those for outside areas appear in Appendix J.

#### NOTIFIABLE INFECTIOUS DISEASES.

As mentioned in my last report, the matter of Local Authorities providing hospital treatment for cases of notifiable infectious diseases as required by section 117 of "*The Health Acts, 1900-1911*," has resulted in agreements being entered into with local hospitals throughout the State. The various Councils are now responsible for the payment of the cost of treatment, and hospital funds by this arrangement are safeguarded; moreover, the Councils, in view of the expense that they may be called upon to bear, should an outbreak of infectious disease occur in their area, naturally may be expected to exercise more care in taking precautionary measures, such as the prevention of nuisances, insisting upon thorough disinfection of premises being at once carried out, as well as securing the early

isolation of the case, as only by these means can good results be expected. Local Authorities have been fully impressed with these facts, and it is pleasing to record that an improvement is noticeable in many areas in respect to sanitary administration.

#### TYPHOID FEVER.

Although typhoid fever during the past twelve months, at outside areas, shows an increase over the number of cases notified during the previous year, the excess is partly accounted for by outbreaks that occurred at Townsville, Toowoomba, and Barakula.

At Townsville, the outbreaks occurred in one end of the town, spreading to a large extent. A thorough investigation of all premises, where cases were removed, was undertaken, and the co-operation of the Town Council was sought in carrying out a vigorous prophylactic campaign. Circulars as per form herewith, as suggested by the M.I.N.Q. (4A), were printed and distributed to all Public Departments and warehouses:—

#### City of Townsville.

#### ENTERIC OR TYPHOID FEVER.

##### INSTRUCTIONS TO HOUSEHOLDERS.

Typhoid and Enteric Fever are different names given to the same disease. It comes on rapidly with an increasing feeling of languor and weakness, loss of appetite, headache and very often looseness of the bowels. Feverishness increases and tenderness of the abdomen is often noticed. When these symptoms are observed the patient should be placed on a diet of Boiled or Scalded Milk and Medical Advice at once obtained.

The infection is given off in the Bowel Discharges and Urine, and may be carried by Water, Milk and Flies.

Apparently healthy persons may act as "carriers" of typhoid without themselves suffering. Convalescents from typhoid may also carry the disease in this way for years after.

##### HOW TO PROTECT YOURSELF AND HOUSEHOLD.

- (1) Boil every drop of water you drink or filter through an Abbot or Pasteur-Chamberland or other good filter. The ordinary "drip-stone" filter is worse than useless. Even the efficient filters mentioned must be regularly and thoroughly cleansed; and care must be taken that filtering material does not get cracked.
- (2) Scald all Milk before it is used, and always use boiling water to cleanse the jugs or cans in which it is kept.
- (3) Thoroughly wash in boiled or perfectly clean water all Fruit and Vegetables used for food.
- (4) Keep all food carefully covered so as to prevent access of Dust and Flies. Flies carry filth to food and convey Typhoid and other diseases. The fly-road from closet-pan to dinner-table is very short.
- (5) Cover all excreta completely with a deodorant such as sawdust or dry earth so as to keep flies away. Do this every time the closet is used.
- (6) If flies frequent the closet, pour in a cupful of kerosene mixed with a quart of soapy water, once or twice a week.
- (7) Keep your house and premises and everything therein thoroughly clean. Always wash your hands before eating or preparing food for others.

Should a case, or a suspected case of Typhoid Fever, occur in your household you are obliged by law to notify the Local Authority at once, if a doctor is not already in attendance. This is highly important, as it may be possible to stop what might otherwise be an epidemic. Always obtain medical assistance at once, for Typhoid is a dangerous disease.

Town Hall,  
Townsville, November, 1915.

W. H. SWALES, Mayor.



The Medical Officer of Health to the Council, in his yearly report, states, *inter alia*: "Typhoid fever has been more than usually present in the city during the past six months in epidemic form, and I attribute the spread of the disease, in part at any rate, to the inefficient way the sanitary contract is being carried out."

The attention of the Council was drawn to the unsatisfactory report of the Medical Officer of Health, and they were requested to take immediate action to suitably deal with the matter.

At Barakula, the outbreak occurred amongst the employees of the Railway Department engaged at the sawmills, where no proper sanitary arrangements were in vogue at the boarding-house and camps of the men, and as the Chin-ehilla Council, under whose jurisdiction this area comes, had no means of providing the necessary service, being too far distant from the town, matters in this respect were found to be unsatisfactory, and to this cause can the outbreak be attributed. Disinfection was carried out, and every effort made to prevent further cases occurring, with the result that the trouble was suppressed in good time. Only a few cases have since occurred.

Typhoid fever, to a large extent, is a fly-borne disease, and can only be successfully dealt with by Local Authorities exercising strict attention to sanitation. Inquiries into outbreaks of this disease invariably point to the fact that the sanitary conveniences are very imperfect and that the fly has free access to the contents of sanitary pans; frequently no provision is made for providing closet lids, and as often as not they are seldom used for the purpose intended. Another difficulty that presents itself in this respect is the use of deodorant for closet pans, and although the Councils may realise their obligations in providing the necessary material, householders are often the principal offenders, being either too lazy or indifferent to attend to this important matter. Garbage tins that are not kept securely covered are another means by which the fly may spread disease, and here again the householder displays much apathy. Local Authorities' by-laws generally provide a penalty for dealing with these matters, but unfortunately Councils frequently appear loath in taking action against offenders, with the result that the law becomes practically non-existent.

The only safeguard against neglect in these matters would be to place more power in the hands of the local sanitary inspector, who should

initiate proceedings for breaches of by-laws without let or hindrance from the Council, whilst he in turn could be held responsible that householders carry out their share of the responsibility.

In this connection I would emphasise the necessity of having all Local Authorities, or at least the majority of them, to provide either singly or conjointly a Certificated Sanitary Inspector directly responsible to the Commissioner of Public Health, and whose tenure of office should not be terminated without the sanction of the Commissioner. This would be a step in the right direction, and would give confidence to qualified officers to accept such positions, and knowing that their work was under the control of the Department of Public Health would be an incentive to thorough efficiency.

The question of the typhoid "carrier" cannot be lightly passed over, inasmuch as outbreaks of fever have occurred at places where sanitary conditions, as far as circumstances could admit, appeared to be satisfactory, and in some instances exhaustive search in ascertaining the cause of the outbreak has proved futile, thus leaving the "carrier" as of paramount importance in disseminating the disease. In large cities this source is at times difficult to prove, but in small rural townships it is much easier to determine the factor, as a convalescent who may himself be cured may still carry infection and is likely to be followed by other fresh cases.

The Director of the Laboratory of Micro-Biology and Pathology reports that during the year a great increase occurred in the number of typhoid specimens received for examination. This shows that medical practitioners avail themselves fully of the services of the Laboratory, and by this means their diagnosis is greatly facilitated.

*Anti-typhoid inoculation.*—The importance of this slight operation is continually being brought under the notice of the various local governing bodies, this Department manufacturing and supplying the vaccine free of all cost to Councils applying for same. It is pleasing to record that a Council quite recently, on learning of an outbreak amongst a body of men employed on railway extension work, telegraphed for a supply of vaccine, which was immediately forwarded, and on receipt of which their Medical Officer of Health visited the scene, at about 50 miles' distance, from where several cases of enteric had been removed to hospital. All the employees willingly underwent vaccination, with the result that the outbreak was stamped out.



The following leaflet has been prepared for Local Authorities for posting up on trees, shearing-sheds, railway extensions, &c.:—

## TYPHOID FEVER.

### How to Prevent it.

Typhoid Fever is a preventable disease, and the means of preventing it is by Inoculation with Anti-typhoid Vaccine, which is specially prepared under Government supervision by the Department of Public Health, Brisbane, and supplied to Local Authorities.

Where numbers of men congregate, such as at shearing sheds, &c., it only requires one of them, who at any period of his life may have suffered from Typhoid, to suddenly become an active carrier of Typhoid Germs, and convey the disease to the whole camp through the agency of flies. This is the usual history of outbreaks in country districts, and the way to prevent it is by becoming Inoculated.

There is no special risk in undergoing Inoculation, which causes but slight inconvenience, so slight, indeed, that no time need be lost from work.

Men who have been drinking should not become Inoculated until the effects of liquor have fully passed off.

Anti-typhoid Inoculation has been carried out among the members of the Expeditionary Forces with most satisfactory results, and it is generally recognised as the only sure preventive against Typhoid.

Persons desirous of adopting this reliable precaution against Typhoid should make early application to the Clerk of the Shire Council, by whom arrangements will be made for a medical man to carry out the necessary Inoculation free of charge.

J. I. MOORE, Commissioner of Public Health.

Brisbane, 14th July, 1915.

The Military Authorities' statistics still show the advantages attached to inoculation, as no case of enteric has occurred in the camps at Enoggera.

### DIPHTHERIA.

A decrease of some 587 cases of diphtheria is shown as compared with the preceding twelve months, and this may be attributed to the fact that at certain centres where the disease had become endemic strenuous efforts have been made to cope with the trouble by gazetting the provisions of the Diphtheria Regulations in force, whereby the swabbing of the throats of school children for bacteriological examination is resorted to, this measure being the only safe measure of detecting "carriers," who, in turn, are kept under strict observation until three successive negative swabs have been obtained. Much credit is due to the Department of Public Instruction, whose officers, when circumstances permit, submit swabs to the laboratory of Microbiology and Pathology for examination, and by this means the health of the school children is safeguarded by excluding suspects from attending school.

The following places have had the provisions of the Diphtheria Regulations renewed—*i.e.*, town of Mackay, shires of Mirani, Nebo, Pioneer, and Sarina; and the Shire of Normanby has had the Regulations extended to its area. The question of extending the Regulations to all areas throughout the State has been considered, but it was decided that this course could not be adopted at far distant places so situated that it would preclude the regular and timely despatch of swabs for examination at the Department's Laboratory of Microbiology and Pathology.

Experience shows that this disease flourishes at places where atmospheric humidity is higher, such as the littoral of the State, and dry Western districts appear, in a marked extent, to enjoy freedom from diphtheria.

### PHTHISIS.

The following table, from the "Official Year Book of the Commonwealth of Australia," No.

9, shows the position of the other States in comparison with Queensland in regard to the death rates from consumption for the year 1914:—

STATE.	DEATH RATES (a) FROM TUBERCULOSIS.			DEATHS. PERCENTAGE ON TOTAL.		
	Males.	Females.	Total	Males.	Females.	Total.
New South Wales ...	0.75	0.59	0.67	6.33	6.58	6.43
Victoria ...	0.84	0.71	0.77	6.66	7.31	6.94
Queensland ...	0.68	0.41	0.55	5.31	4.61	5.04
South Australia ...	0.96	0.90	0.93	8.08	9.54	8.74
Western Australia ..	0.99	0.66	0.84	9.22	8.69	9.03
Tasmania ...	0.63	0.64	0.63	5.91	6.65	6.26

The number of cases during the year shows an increase to those of the previous year, but when considered in conjunction with the increase of population, the incidence is not abnormal.

As in my last report, I would again urge the necessity of establishing a central dépôt through which all cases of phthisis could be immediately sent for treatment at a sanatorium, as delay at the patient's own home or boarding-house is a menace to public health generally.

The staff nurse, as in the past, continues to render signal service in visiting all cases notified by medical practitioners in the Metropolitan Area, when disinfection of the premises is carried out on the removal to a sanatorium or otherwise of the patient. The good results achieved by these precautionary measures are appreciated by the public, and the danger of the spread of the disease is thereby minimised.

Much useful research work is conducted at the Laboratory of Microbiology and Pathology in the examination of sputum, and the medical profession freely avail themselves of this means in determining their diagnosis when patients show symptoms of tubercular complaint. This test is carried out free of charge, and consequently no expense is borne by the sufferer.

Consumption, if taken in its incipient stage, can be successfully treated and the patient restored to health by following out the simple hygienic principles and a suitable dietary.



The economic phase of the disease is certainly worthy of consideration, and as the cost to persons of small means in obtaining treatment militates against the complaint receiving the attention in its first stages that is necessary, it often happens that its ravages not only cause trouble to the individual but the disease is frequently spread to some of the other members of the household, and thus not only is one life marked out, but unknowingly the germs are spread broadcast to others. The loss to the wage-earner in such cases proves a heavy burden sooner or later, as, if the illness is of long duration, expense is coupled with incapacity.

#### MALARIA.

During the year malaria has been added to the list of proclaimed infectious diseases. This course became necessary through the annexation of German New Guinea, where the disease is endemic, and from where troops returning to Queensland were likely to spread the disease through the agency of mosquitoes. The Commonwealth, viewing with some alarm the possibility of malaria gaining a hold in the States, recommended to the various State Governments the advisability for making the disease notifiable. The Director of the Australian Institute of Tropical Medicine at Townsville has under his treatment returned soldiers affected with malaria, and who are detained there for at least two months in order that their blood may be carefully tested for malarial micro-organisms. In this connection the mosquito known as the *Anopheles* is an important factor, inasmuch as it is the recognised transmitter of the disease from man to man, and as such must be rigorously dealt with. In view of this, Regulations dealing with mosquitoes have been gazetted in force throughout the State, and Local Authorities have been called upon to carry out the necessary provisions of same. Prior to this action some Local Authorities and public bodies, who were keenly alive to the necessity for taking preventive measures, applied to this Department for full information as to the methods and procedure to be adopted to successfully fight the pest. Surveys were made by the staff, and local conditions were inquired into, after which the many technical aspects of the situation were outlined for the guidance of the parties interested. The northern coastal areas of the State, whose situations are within the tropical zone, where malaria has its home, are the centres to be viewed with suspicion, and require more stringent measures to be adopted than in any other portion of Queensland. Moreover, the suspicion that dengue fever is spread by the agency of the mosquito is occupying close attention and, if suspicion once becomes an established fact, then the labour expended on mosquito destruction work, both in regard to malaria and dengue, will prove an economic asset to the community at large.

To sum up, malaria can be prevented by the drainage of malarious areas, the extermination of mosquitoes, and protection of the exposed parts of the body, especially at night-time.

It is a well-known fact that where mosquitoes cannot breed malaria cannot exist.

#### CEREBRO-SPINAL MENINGITIS.

During the year some 101 cases (4 of which were negative) of cerebro-spinal meningitis were reported, made up as follows:—55 military

and 42 civil from the Metropolitan Area, while 20 cases were received from outside centres. The outbreak was confined principally to the Metropolitan Areas of Brisbane, and were in the latter case principally confined to infants and children under fifteen years of age. The general symptoms of the disease were vomiting, rise of temperature, pains in the head and neck, and in many instances convulsions, as described in the report of the Health Officer. (See Appendix A.)

Exhaustive inquiry was made into the circumstances surrounding individual cases with a view to ascertaining the cause of the disease, but unfortunately nothing definite could be obtained nor any particular foci traced.

Action was being taken by the Director of the Laboratory of Microbiology and Pathology to prepare anti-meningococcal serum for distribution amongst local medical practitioners, but this course became unnecessary, as the Federal Authorities undertook its preparation.

A supply of the serum was obtained from Melbourne, and the State Government is issuing same free to hospitals and medical practitioners who, in return, furnish the Department with clinical results.

A special warning was issued through the Press as to the necessity of care being exercised in not coming in close contact, such as kissing, and the use or handling of other person's handkerchiefs, owing to the micro-organisms of this disease being specially located in the nasopharynx.

#### VENEREAL DISEASES.

Venereal diseases in this State are governed by sections 132A, 132B, 132C, 132D, and 132E of "*The Health Acts, 1900 to 1911*," and "*The Venereal Diseases Regulations, 1913*."

At present section 132A is only applicable to the Metropolitan Area as defined under subsection (d) of section 132B. A venereal clinic for both sexes and administered by this Department is held four days a week at the General Hospital. A Government Examination Room in the central portion of the city is provided, where prostitutes are required to attend for examination, two medical men being in attendance to provide certificates where necessary as required by section 132C. Smears are also taken for bacteriological examination and blood capsules used for collecting a specimen of blood from each patient for the Wassermann Reaction, and a fully equipped special ward is provided for treatment of the disease.

When the medical attendants at the Examination Rooms are satisfied that a case requires treatment, a certificate is issued to the nurse in attendance, who presents it forthwith to a Police Magistrate, and he commits the patient to fourteen days' detention at the Venereal Wards of the Brisbane Hospital under section 132C (a). During the period mentioned treatment is carried out, and when necessary, the patient's name is submitted, as required by section 132C (b) to the Governor in Council, who orders a further detention until the case is certified as being free from the disease.

A Regulation dated 16th September, 1915, makes it an offence for any person to leave hospital whilst infected with venereal disease.

Delay in removing cases to hospital has been experienced owing to having to submit two medi-



cal certificates to the Bench in order to secure a summons calling upon the sufferer to appear for committal to the Enthetic Diseases Ward; this procedure could be shortened by amending the provisions of section 132c of the Health Acts so as to give power to the Commissioner himself to commit such cases direct to hospital, as is now in vogue in Western Australia.

In the Metropolitan Area the working of the Regulations is not satisfactory, the question still requiring settlement being: "What constitutes a prostitute, and how can it be proved?" The legal difficulty has not yet been surmounted, and consequently the regulation inviting this class of the community to come up for examination is proving ineffective, thus the opportunity for treating the disease to a large extent is lost, and serious cases consequently go unchecked.

Provision is required to compel all males and females suffering or suspected to be suffering from venereal disease to place themselves under treatment with medical practitioners either privately or to avail themselves of the venereal clinic provided free by the Government for both sexes at the Brisbane General Hospital.

An amendment of the Health Act is in my opinion necessary to provide for the above requirement.

The clinic is doing good work. The numbers treated thereat during the year under review amounted to 2,922. (*See Report furnished by Dr. Walsh, Medical Officer to the Enthetic Disease Dispensary, Appendix C.*)

The difficulty in providing Salvarsan, or 606, owing to the war was a drawback, but limited supplies of a substitute were secured, viz., Arsenobenzol and Neo-Arsenobenzol, which were favourably reported on by Dr. Crowe, who was acting for five months in charge of the Enthetic Diseases Ward, and should further favourable reports be received concerning this preparation, a larger supply will be requisitioned for.

During the year notifications of cases of venereal disease amounting to 1,946 for the Metropolitan Area were received, as against 1,414 for the last year, and were as follows:—

Primary Syphilis, 303;  
Secondary Syphilis, 47;  
Gonorrhœa, 1,596;

and occurred amongst patients of the following ages:—1-2, 4; 3-4, 3; 4-5, 3; 5-10, 2; 10-15, 3; 15-20, 260; 20-25, 679; 25-30, 460; 30-40, 369; 40-50, 136; 50-60, 26; 60 and over, 1.

Two hundred and fourteen of the infected persons described themselves as married, 1,724 as single, and 8 as widowers; 362 cases were notified from hospitals, 1,584 by medical practitioners.

The great increase in the number of cases notified can be ascribed to 1,105 notified from military camps.

Many places are mentioned on the notifications outside of the Metropolitan Area as the source from whence the disease has been obtained, extending so far as the Southern States. It will be seen from the Report of the Medical Officer (Appendix C) that there is a falling off in the number of new cases, being 63 as against 85 for the previous year, attending at the William street Examination Rooms.

## LEPER LAZARET, PEEL ISLAND.

During the year the average number of inmates at the Lazaret amounted in all to 44, comprising some 14 males and 2 females in the whites' compound, and 26 males and 2 females in the blacks' area.

The total number of deaths amounted to 6, whilst two males and one female European were discharged as cured, conditionally on their presenting themselves for periodical examination during a period of twelve months, so as to ascertain that they are still immune.

All inmates continue to receive treatment at the hands of the Health Officer, who secures specimens periodically from them for bacteriological examination at the Laboratory of Microbiology and Pathology. A record is kept of the results obtained, and if four to five consecutive negatives are shown the case is then recommended for discharge under the conditions mentioned above. Everything possible is done for the comfort of the inmates, strict attention being paid to cleanliness as regards accommodation, bedding, wearing apparel, &c. A generous diet is provided, and the Superintendent makes it his special business to see that the cooks attend to their duties, and that the food is properly served. The Health Officer on his weekly rounds of inspection is always available to investigate any complaint, and which, if found to exist, is promptly rectified. Every facility is afforded to relatives to visit the inmates, and free passages by rail are issued to those living at distant centres, so that they may be saved every possible expense in journeying to and from the Lazaret; and in cases where inmates have dependents in poor circumstances suitable employment is found for them. A good feeling exists between the inmates and the staff, and in spite of the nature of the disease accompanied by its characteristic inclination to fits of *ennui*, it is most gratifying to have to mention that one and all appear to fully recognise that everything is being done to minimise and alleviate their sufferings. Ministers of religion of various denominations regularly attend to the spiritual welfare of the inmates, and to these gentlemen every praise is due as, to a large measure, their kindly ministrations materially facilitate the good administration of the Lazaret.

I feel it incumbent on me to mention that the inmates are most grateful for the kindly interest shown them by the public in furnishing funds wherewith to obtain articles of amusement, as well as providing from time to time supplies of reading matter, which helps to while away weary leisure hours, especially as some of them are physically unable to take active exercise, and must perforce have recourse to reading as a pastime. (*See Appendix A for the Report of the Health Officer.*)

## FOOD INSPECTION AND FOOD ADULTERATION.

The work in connection with this branch of the Department's administration has been satisfactorily conducted during the year, a strict supervision having been exercised over all places at which food and drugs of every description are manufactured or exposed for sale, including milk, bakeries, aerated water factories, and restaurants, as well as hotels, &c.



The Metropolitan Area, also the country districts, have received close attention, and the interests of the general public have been safeguarded both in respect to the quality of goods as well as the proper weight of same, the latter including bread, tinned goods, and groceries. Deteriorated foodstuffs at auction marts, warehouses, factories, and business premises have received close supervision by the Food Staff, resulting in the condemnation of all lines found to be unfit for human consumption. Prosecutions have been initiated wherever necessary, resulting in offenders being suitably dealt with by the Police Magistrates throughout the State, as shown in the list of fines, &c. (See Appendix G.)

A general improvement has been secured in the cleanly handling and protection of foodstuffs, including structural defects of premises in which all such goods are prepared, as well as conveyances used for the delivery and hawking of all lines of food intended for consumption. Particular attention has been paid to the matter of labelling of groceries, drugs, and liquors, &c., so as to protect the public against fraud as well as the *bonâ fide* trader.

In the past, inferior articles were placed on the market bearing attractive labels, but the contents of the containers were frequently found not to comply with the requirements of the Food and Drug Regulations, and these were retailed to the disadvantage of superior lines costing considerably more to manufacture. However, through the untiring efforts of the Department in this direction a vast improvement has resulted.

Since my last report, section 96 of "*The Health Acts, 1900-1911*," prohibiting the carrying of water in milk carts, which practice hitherto was adopted by dishonest milk vendors as an excuse for the rinsing of milk measures, but frequently used for adulteration purposes, has been gazetted in force in the Metropolitan Area. This course has materially assisted the work of food inspectors, who in the past experienced much difficulty in dealing with dishonest traders. Regulations for the registration of milk vendors have been prepared and submitted for gazettal with a view to the cancellation of licenses of dishonest vendors who are not debarred by prosecution from watering their milk, knowing that they will ultimately make good the loss at the expense of the consumer. New Standard Food and Drug Regulations are now under consideration, and these have been prepared, as far as local requirements will permit, to comply with conditions existing in the other States and approved of at the Commonwealth Conference with a view to ensuring uniformity between States. This measure, when passed, will materially assist importers, who at present are, in some instances, confronted with existing different conditions.

For full particulars as to the number of samples, prosecutions and deteriorated food lines dealt with, see Appendix G.

#### PLAGUE AND RAT DESTRUCTION AND SANITARY ADMINISTRATION.

Queensland has now been exempt for many years from any case of plague. This is solely due to the continual warfare waged against the rodent, as well as the strict supervision at ports of entry of oversea vessels, by the Quarantine Authorities.

During the past year the work of rat destruction has been faithfully carried out at the principal ports of the State. In the Metropolitan Area the rat-proofing of premises has been attended to by the Department's rat gang with satisfactory results, and many places in the city that formerly were recognised as veritable rat harbourages no longer exist as breeding-grounds for the rodents. During the close of the year under review the various Local Authorities throughout the State have, in pursuance of "*The Rat and Mosquito Prevention and Destruction Regulations, 1916*," been called upon to undertake the work of rat destruction and the suppression of mosquitoes under the supervision of this Department. By these Regulations the Commissioner may declare any area to be rat infested, and may call upon the Local Authorities to take as effective measures as he may direct. This also applies to the suppression of mosquitoes.

The Inspectorial Staff of this Department have been instructed to at once report any matter in the above connection which requires attention by the Local Authorities, so that the Council may be called upon to carry out any work that may be considered necessary. The work of the Sanitary Staff has been creditably performed, and much valuable assistance has been rendered whenever required. Strict supervision has been exercised over sanitary services at the places visited, and any defects in respect to garbage and nightsoil work, including disposal depôts, has been promptly brought under the notice of the Council interested for immediate attention. Advice respecting disinfecting plant as well as sanitary appliances has been fully given to Councils, and whenever required such goods have been selected and ordered by the Headquarters Staff to the satisfaction of the Local Authorities interested. Full particulars of the places visited and conditions appear in the Chief Sanitary Inspector's Report, Appendix F.

#### INSPECTION OF MILITARY CAMPS.

Sanitation at the metropolitan military camps has been kept under supervision by a sanitary officer of this Department, who has regularly visited the different camps, and his weekly reports have been furnished for the information and guidance of the responsible authorities. Inspector Burton, who was appointed for this duty, reports as follows:—"From the time of my taking up such inspectorial work to the 30th June, 1916, assisted by Captain Nelson, I have made over 380 individual inspections, and in connection with special inspections may be added 17 others which were not directly connected with, but at the same time affected, the health of the said camps owing to certain nuisances existing in close proximity to same. These matters were in the majority of cases rectified by means of personal interviews with the various Local Authorities in whose areas the nuisances existed. In each case the Council took prompt action and had matters rectified. The majority of the defects referred to were in connection with close proximity of piggeries, drainage, rubbish, &c."

As a member of the Military Sanitary Committee, whose duty it is to see that all hygienic conditions at the camps are satisfactory, I am glad to say that the results obtained are all that could be desired, as is evidenced by the marked absence of infectious disease among the troops.



The food inspectors have been entrusted with the supervision of food supplies for transports as well as local provisions, and good results have been obtained.

#### NORTHERN OFFICE.

Since the decentralisation of the Northern Office has taken place, as outlined in my previous report, by transferring from Townsville two inspectors respectively to Cairns and Rockhampton, the change has proved entirely satisfactory. The inspectors at Townsville, Cairns, and Rockhampton have been allotted districts under their individual control, and perform both food and sanitary duty, whereby a considerable saving is effected in both time and money; in addition to this, another advantage is that they obtain an intimate knowledge during tours of inspection regarding existing conditions in their respective areas, and are now in a better position for securing the carrying out of their recommendations by the persons responsible for effecting necessary improvements, both in respect to breaches of the Food and Drug Regulations as well as sanitary defects. The office of Medical Inspector at Townsville has during the past year been abolished on that officer verbally reporting that, unless the local staff was considerably strengthened, there would be no good reason for his continuing to hold office. This suggestion was accordingly acted upon, as the results obtained by placing an inspector at each of the Northern towns, in lieu of retaining them, as previously, at Townsville, led to the more expeditious and economical carrying out of the work. Inspectors at the Northern Offices are furnished regularly by the Head Office with a weekly summary of all infectious diseases notified in their areas, so that any increase may be at once investigated, and sanitary defects as well as other matters immediately brought under the notice of the Local Authority for attention.

Officers fully appreciate the present system of having charge of an allotted area, as they are now saved to a great measure long tedious tours away from their families.

Should occasion arise that an inspector at a far distant centre urgently requires assistance to cope with some unforeseen occurrence in the shape of a sudden outbreak of infectious disease, then the services of the next nearest officer would immediately be made available, and, if necessary, this could be supplemented by sending inspectors from headquarters; but such a contingency would only arise when a Local Authority, with the staff, was unable to assist, and which in the past has only happened in rare instances.

#### LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

The Report of the Director of the Laboratory of Microbiology and Pathology, which is contained in Appendix B, continues to show an increase of work performed during the year, especially in connection with enthetic diseases and cerebro-spinal meningitis, as well as in examinations in respect to tuberculosis, typhoid, diphtheria, &c., which betokens that in the near future an increase in the professional staff will be necessary.

The work connected with meningitis was mostly carried out on behalf of the military authorities for suspected carriers, but the Director points out that the number in which the

bacilli were found was very small. This fact may be due to the lapse of time between the taking of specimens and their examination; moreover, this micro-organism is most transient. The number of specimens submitted in connection with venereal disease likewise shows a large increase, and this also refers to blood sera for the Wassermann reaction.

Much useful research work in connection with foods has been carried out at the Laboratory.

A large number of disinfectants placed upon the local markets were tested to ascertain their Rideal Walker Coefficiency, and many of these proved only suitable for use as a deodorant, and at the price quoted would be prohibitive for general use as disinfectants.

Numerous specimens of water were tested bacteriologically, so as to ascertain whether they were fit for human consumption. This work is carried out free of charge to Local Authorities who are anxious to protect ratepayers depending on public water supplies for potable use.

#### CHANGES IN PERSONNEL OF STAFF.

The following are the changes in the staff that have occurred during the year:—

Dr. King Patrick, Ch. B., B. Sc., D.P.H., who was appointed Medical Inspector of North Queensland in November, 1914, was relieved of his appointment on the 1st May, 1916, owing to the abolition of his office, which was no longer necessary through the decentralisation of the Townsville staff.

Mr. H. M. M. Maddock was appointed on the 8th December, 1915, to fill the position of Senior Clerk during the absence of Mr. R. H. Walsh, whose services on his return from active service were retained by the military authorities.

Mr. T. O'Shea, who filled the position of First Clerk, joined the Expeditionary Forces, and is now at the front.

Mr. R. G. Little, Record Clerk, also enlisted with the Expeditionary Forces.

Mr. J. R. Hogan was appointed to the position of Record Clerk in place of Mr. Little.

Inspector A. E. L. Mason and Assistant Inspector L. E. Cooling, both of the Food Staff, enlisted for active service.

Miss Amy Perry, who held the appointment of Senior Staff Nurse since the Department's inception in 1900, resigned her position on the 30th June, 1916. Nurse Perry's splendid work whilst on the staff stands out as a pleasing record of competency and devotion to duty.

Nurse Ellen Cruise, who held the position as Assistant Nurse, has succeeded to the position rendered vacant by Nurse Perry's resignation, whilst the second vacancy remains to be filled.

Mr. D. H. Wallace was appointed as Assistant Inspector as from 29th May, 1916, in place of one of the food inspectors who enlisted (Mr. Mason).

The Headquarters Staff at the end of the year under review consisted of the following officers:—A Commissioner, a Health Officer, a Secretary, a Senior Clerk, a Chief Sanitary Inspector with four sanitary inspectors, a Chief Food Inspector with three Inspectors, and three



Assistant Inspectors in connection with foods, a staff nurse with an assistant, two typistes, two clerks, and a messenger.

A rat gang consisting of eighteen men was employed in the Metropolitan Area of Brisbane up to the 10th June, 1916, when the number was reduced to nine men. A ratcatcher was stationed at the following places:—Maryborough, Bundaberg, Rockhampton, Mackay, Townsville, and Cairns, but their services were likewise dispensed with upon rat-destruction work being placed in the hands of the Local Authorities at the places mentioned. Two permanent officers were as usual employed in connection with disinfecting work in the Metropolitan Area (Brisbane).

Two men were employed in mosquito eradication work up to the 10th June, 1916, in Brisbane, but their services were dispensed with owing to the work being transferred to the Local Authorities, similar to rat destruction operations.

The staff of the Laboratory of Microbiology and Pathology consisted of a Director, one principal assistant, two assistants, a typist, and an attendant, who also acts as messenger. Mr. J. H. Bradbury, one of the Laboratory assistants, enlisted on the 1st March, 1916.

The staff of the Northern Office, Townsville, consisted of a Medical Inspector up to the 1st May, 1916, since when one inspector only remains. An inspector is stationed at Rockhampton and Cairns. These officers, similar to the one at Townsville, perform both food and sanitary work.

The Lazaret at Peel Island has the following officers:—a Superintendent, an Assistant Superintendent, two cooks, two assistant cooks, one dresser, three attendants, one housekeeper, and two labourers. Inmate labour comprised one carpenter, two laundrymen, and three attendants.

#### OFFICERS AT THE FRONT.

Since my last report, several other officers have followed the fine example set them by enlisting for active service, and the following comprise the names of the staff now serving their King and country:—Dr. G. P. Dixon, Major R. H. Walsh, Lieutenant A. N. Young, Sergeant Potter, Privates E. C. Julian, J. Critchley, E. F. Scott, T. O'Shea, R. G. Little, L. E. Cooling, A. E. L. Mason, and J. H. Bradbury.

Private Wm. Neil since returned to duty, having been invalided through an injury and passed as unfit for further service.

#### CONCLUSION.

It is pleasing to here record the fact that during the past year Queensland has again maintained its reputation for being one of the healthiest States of the Commonwealth, and this alone should do much, after the war, in attracting fresh population to our shores, as the health statistics of a country are invariably carefully weighed by intending immigrants.

The reports of the various officers of the Department show that they have done good work, and that they have not spared themselves in performing their duty in the interests of the pub-

lic; and in a large measure it is due to their individual efforts that the Department may justly claim to have successfully carried out its functions.

A close watch has been kept upon sanitary matters throughout the various areas visited by the Staff, and steps taken to have defects immediately rectified. Cesspits have invariably been discouraged, as they are regarded as veritable disease traps; they not only form breeding ground for flies but are a positive danger in respect to sources of water supplies, especially at places where wells exist. In dry seasons these wells are largely availed of by the public for domestic purposes. Another source of danger is the pollution of fresh watercourses, especially at inland towns, where household drainage is allowed to gain access to creeks, &c., and the water of which, being consequently contaminated, frequently is lost for domestic use as well as for stock.

Inspection of foodstuffs from labelling to manufacture has received close attention, and this branch of the work is daily increasing in magnitude.

My appreciation for the valuable assistance rendered to the Department by Mr. Henderson, the Government Analyst, in respect to the analysis of foods and drugs submitted to him, and this, together with his experience in connection with the sophistication of food supplies, has greatly facilitated the work of the staff. Dr. Harris, the Director of the Laboratory of Microbiology and Pathology, as well as Dr. Thomson, Health Officer, are also deserving of special mention; and I also thank all officers of my Department for their valuable assistance, as they have been called upon to perform additional work on account of the depletion caused by their brother officers volunteering for military duty.

The standard of the clerical work of the Department has been well maintained, though the staff has been shorthanded. An increase in both the incoming and outgoing correspondence is recorded, as shown by the following figures:—Incoming letters amounted to 12,026 as against 11,891; and outgoing 6,956 as against 6,326 during the preceding fiscal year.

The results obtained by public health administration in preventing outbreaks of disease, even when crowned with success, seldom meet with the recognition merited; and the immunity enjoyed from disease, when compared with the cost of administration, is often entirely passed over by the public, who are slow to recognise the fact that "prevention is better than cure," and that they are obtaining a substantial return for money expended in safeguarding public health.

To quote a well-known writer, "It has been proved over and over again that nothing is so costly in all ways as disease, and that nothing is so remunerative as the outlay that augments the amount and the value of the work done."

I have, &c.,

J. I. MOORE,

Commissioner of Public Health.



## APPENDICES.

## APPENDIX A.

## REPORT OF HEALTH OFFICER.

SIR,—I have the honour to submit my report for the year ending 30th June, 1916.

## METROPOLITAN AREA.

The chief communicable diseases which have been prevalent for the year, as on previous occasions, are those of typhoid fever and diphtheria, which are endemic in the State.

The typhoidal curve commenced its ascent in the month of September, rising gradually until the month of November, when it rose suddenly and gained the maximum of its altitude in December, falling off gradually through the months of January and February, rising abruptly again in March, but not to its previous height, and again falling through the months of April, May, and June, and gradually falling off to usual course in the latter month.

The course of the curve is both instructive and interesting, and owing to the close relationship between the increase in temperature and the advent of the ubiquitous fly, one of the recognised factors in the spread of the disease, combined with the conditions of heat and moisture and other favourable influences propitious to the development and existence of the typhoid bacillus much more than those obtaining during the winter. Contact has, however, latterly come to be recognised as playing a more important rôle in the transmission of typhoid fever than it has formerly been accredited with, and during the hot months conditions are more favourable for this influence to come into operation than in the colder months of the year. Most of the community are out of doors during the season, and picnics and gatherings of all kinds held in the open enable the community more or less to come into contact with each other, and the conditions for handling food and drink with tainted fingers or other sources of infection are greatly facilitated at this time more than when the family groups maintain the shelter of their own roof in the colder weather and confine themselves more to the company of their own circle. The same conditions have been observed by students of epidemiology in countries distantly separated from each other, such as America and Germany, and the conclusions from investigations arrived at independently of each other proved that about 60 per cent. of all cases are believed to be due to contact infection. The Board of Medical Officers in America placed the percentage of contact cases at 62 per cent., while Drigalski, for Germany, gives 64 per cent., which approach a sufficiently close parallel from them to be attributed to merely accident or coincidence. Anti-typhoid vaccination should, therefore, be more freely resorted to throughout the State.

Meteorological and climatic factors are noticeable also in the Diphtheric Curve, which reached the point of culmination at the end of July, 1915, falling in the intervening months to maintain a light periodical fluctuation until the month of May this year, when it rose again with

the advent of cold weather and hygroscopic conditions of the atmosphere, the relative humidity of which was considerably increased, also favoured a tendency to a relaxed and congested condition of the mucous membrane of the throat and respiratory passages with considerable engorgement and congestion of the superficial vessels in that region, specially facilitating the entrance and development of pathogenic organisms, more so that of the diphtheria bacillus. Co-operating with these factors there was also probably a lowered resistance upon the part of the community, especially the infantile and juvenile portions, from the continued and enervating heat of the summer months, which leaves them a prey to attacks of zymotic and other diseases at this time of the year.

Latterly, the dangers of picture palaces and shows of any kind have been pointed out as favouring the spread of the disease—a crowd packed together, probably three-fourths of them children of school age, and where sweets, fruits, biscuits, and bottles of ginger-beer, lemonade, and other liquids are passed from one to the other, furnishes an ideal place for the spread of zymotic diseases.

Following up of carriers and swabbing of throats have been carried out during the year as heretofore, but some later writers and authorities are now advocating a more general removal of the tonsils and adenoids than has hitherto been the case in the treatment of the persistent carrier if it is wished to promptly terminate the condition. It is a well-known fact that in the taking of swabs for bacteriological examination any previous applications may and do destroy the bacilli on the surface, while they leave them intact in the crypts of the tonsils and the fold of the adenoid tissue, so that a case may continue to show a negative result; but the person may be all the same a potent successful distributor of the disease, and this condition may be kept up for months. The operation can be carried out in most instances two or three weeks after the clinical recovery of the patient, and is advantageous in other respects—that it removes a great deal of the boggy and unhealthy tissue which does no good to the patient and is always a constant source of danger in aiding the tendency to sore throats on the slightest possible change in the meteorological conditions of any kind, and often improve the mental condition of the patient at the same time. Anti-toxin should also be used in every instance as early as possible, not even waiting for the results of the bacteriological examination before administering it, as all sore throats should be regarded as diphtheric in character or likely to become so at any moment, and the earlier it is used the more efficient is its action in neutralising the toxin in the blood formed by the diphtheria bacilli. The persistency of the Annual Diphtheric Curve shows that it is not widely enough resorted to in the treatment of this disease.



## CEREBRO-SPINAL MENINGITIS.

Epidemic Cerebro-spinal Meningitis has occurred throughout the year amongst the combatant and civil population. One hundred and one cases were notified to this Department during the year, of which 55 were amongst the military population and 46 (including 4 negatives) amongst the civil population, the latter only coming directly under my control.

Brisbane .. .. .	15
South Brisbane .. .. .	8
Windsor .. .. .	2
Balmoral .. .. .	1
Ithaca .. .. .	4
Toombul .. .. .	2
Stephens .. .. .	3
Kedron .. .. .	1
Enoggera .. .. .	3
Toowong .. .. .	2
Wynnum .. .. .	1
Indooroopilly .. .. .	1
Hamilton .. .. .	2
Sandgate .. .. .	1
<hr/>	
	46

Of these 46 civil cases the age and sex distribution were as follows:—

	Males.	Females.
0 to 1 year .. .. .	4	2
1 to 2 years .. .. .	6	3
2 to 3 years .. .. .	2	4
3 to 4 years .. .. .	3	1
4 to 5 years .. .. .	1	3
5 to 15 years .. .. .	3	3
15 to 30 years .. .. .	2	6
30 years and upwards	1	2
<hr/>		
Total .. .. .	22	24

From this table it will be seen that in the age group 0-4 years the heaviest attack was upon males in a ratio of  $1\frac{1}{2}$  to 1, but in the age group from 4 onwards the evidence as regards sex is reversed, females showing the heaviest rate in a ratio of 2 to 1. Taking the numbers, however, for the whole age groups, the rate of incidence is pretty near equal for both sexes, the females showing a slight preponderance; but these numbers are too small in themselves from which to draw any conclusive deductions.

*Symptomatology.*—The disease was ushered in as a rule suddenly with vomiting, rise of temperature, pains in the head and neck, and in the majority of cases head retraction and Kernig's sign were present. The evidence of an accompanying rash was variable. When it did occur it was of a petechial nature, and limited mostly to the buttocks and legs.

In many of the cases convulsions were a prominent feature of the complaint; in others the symptoms were more of the nature of a general drowsiness, gradually verging into a state of unconsciousness and coma. In those cases where recovery took place it varied; some regained convalescence in two weeks, in others longer, and in one or two cases up to two months.

*Etiology.*—After following up several of the cases, it was evident that milk or water could not be regarded as causative factors in this complaint. In several instances tinned milk was used, in another no milk at all, whilst those in which cows' milk was used each case had it from a separate dairy, and on making further inquiries no secondary cases had occurred in either of these households, nor was any other case of the disease known amongst any other of the customers supplied from that source; and the water used was mostly town supply, and what has been

said with regard to the milk supply applies also to this and to the food. Nor could dust or dirt be considered a prominent feature in the occurrence, as most of the houses visited were clean and well kept, and in many instances of a better order, and places where it would have been expected to occur seemed to escape altogether. There was no indication of its spread by schools, nor was there any evidence that it was favourably or unfavourably influenced by topographical situation. It occurred equally outside the confines of the Metropolitan Area on the top of a series of hills and far removed from any other houses, and in the hollows and depressions in and around the city; in fact, the spread of this disease disobeys the epidemiological characteristics of other infectious diseases. Although the heaviest rate of incidence has been in the Brisbane and South Brisbane areas, yet there has been no marked tendency for the cases to group themselves round any particular foci—only in two streets were there more than one case, and these were well separated as regards distance, and no connections could be traced between them.

The first appearance of the disease occurred last year (July) and apparently coincided with the arrival of some of the volunteers from Tasmania who came to make up one of the battalions, and observations in other places where the disease is present confirms the belief that it is in some way connected with the presence of troops in the areas so affected, as it is well known that the bringing together of a large number of recruits in camp is apt to be followed by a prevalence of the disease.

From the Reports of the Local Government Board reference is contained therein with regard to outbreaks in certain districts during the first six months of 1915—in some of the districts in Wiltshire, where a number of cases occurred in the second part of 1914—and in the early part of the following year at Reading, Bristol, Portsmouth, and Liverpool. It also appears that one of the Canadian contingents had cases at Valcartier Camp before leaving Canada, and cases continued to occur after they reached England and were encamped on Salisbury Plains, and the disease was definitely established amongst them by the end of 1914. In 1915 40 cases occurred in the city of Salisbury, which had become a large military centre, and other cases occurred in other urban and rural districts in the same county; the outbreak in Reading included some 20 cases amongst the troops in the town, and cases continued amongst the civil and military population during the first six months of 1915. In Bristol 90 cases were notified in the first six months of 1915. In Portsmouth the first cases occurred amongst the naval and military population, and subsequently 50 were notified amongst the civilians. A small outbreak in Winchester also seemed to have originated with the military.

As far back as 1839 the disease was carried all over France, from the Pyrenees to the Rhine, by the French 18th Light Horse Infantry.

There is no reason to doubt that the same factors are in operation here, as contact with the troops either directly or indirectly has been ascertained in the majority of the cases occurring in the civil population, and the disease seems to have first made its appearance amongst the troops as already stated. The cause of the disease is due to the presence of a micro-organism, the meningococcus, in the mucous secretions



of the naso-pharynx of patients and a certain number of individuals, apparently healthy, who have been in contact with patients. Some observers attribute this as the sole cause of the disease; others, equally competent observers, maintain that the organism does not cause the disease, but that the real infecting agent is a very minute organism capable of passing through the pores of a bacteriological filter, or that the two are different phases in the life-history of a single causal micro-organism. The whole subject is surrounded at the present time by a great deal of speculative controversy, and no finality has been reached in the matter, so that it has to be left to modern research for further elucidation.

The measures taken to prevent dissemination: Medical inspection is carried out immediately in all cases as far as possible on receiving notification, and instructions given as to steps necessary to take in the combating of the disease.

*Prophylaxis.*—Taking swabs from the naso-pharynx of all contacts, which are transmitted to the Laboratory for bacteriological investigation and subsequent location of carriers.

Keeping of school children from school for twenty-one days, and from any places of amusement, and adults for the same period from public assemblies; gargling of throats and spraying of noses with potassium permanganate (1 in 1,000) according to the rules laid down by the Local Government Board in dealing with the disease, and general measures of disinfection carried out by this Department in every instance.

#### LAZARET, PEEL ISLAND.

The total number of inmates remaining on the 30th June, 1915, was	.. .. .	47
Admitted during the year ending 30th June, 1916	.. .. .	6
—Whites 3, coloured 3	.. .. .	—
		53
Died during the year ending 30th June, 1916—		
Whites 2 (males 2, female 0)	.. .. .	2
Coloured 4 (males 4, females 0)	.. .. .	4
		—
		6
Discharged during the year ending 30th June, 1916—Males 2, female 1	.. .. .	3
		—
		9
Leaving a total of 44 inmates on the 30th June, 1916, made up as follows:—		
White males	.. .. . 14	} 16
White females	.. .. . 2	
Coloured males	.. .. . 26	} 28
Coloured females	.. .. . 2	
		—
		44

The male coloured inmates are as follow:—  
South Sea Islanders, 12; aboriginals, 6; kanakas, 2; half-castes, 4; Chinese, 1; Japanese, 1; = 26.

The varieties of the disease prevalent amongst the inmates were—

1. Tubercular Leprosy.
2. Mixed Leprosy.

The treatment during the year has been carried on with Chaulmoogra oil and antileprol until latterly, when no more of the antileprol was obtainable owing to the conditions of the war existing and the fact that all supplies proceeded ordinarily from Germany, which had the sole control of manufacture.

When this happened many of the patients changed to Chaulmoogra oil administered in gelatine capsules, and in this way they have been able to overcome somewhat the nauseating effects of the oil. The results obtainable this year have continued to be beneficial to both sections of the affected community, but more especially to the whites, in three of which, two men and one woman, the clinical symptoms disappeared almost entirely, and bacteriological examination on four separate occasions, at three monthly periods, failed to demonstrate the presence of the specific bacillus of the disease (*Bacillus Lepræ*), so that they were entitled to be discharged under quarantine surveillance and to report themselves further to this Department for bacteriological examination as required.

Chaulmoogra oil still continues to maintain its reputation as a curative and specific remedy in this complaint, and other workers in the same sphere testify to its effectivity in the treatment of the disease, notably McCoy and Hollinman of the United States Leprosy Investigation Station at Hawaii, who have written and given a summary of their experiences with Chaulmoogra oil and the present state of knowledge with regard to it. They state that they have administered it in some form to nearly every leper coming under their care, the majority of them taking it in a gelatine capsule. It was given in forty-two cases, in sixteen of which it was given for periods of ten to seventeen months.

The Director of Public Health in the Philippine Islands also refers to the efficacy in this respect in a report published in 1914, in which nine cases were treated by this method and continued long enough to give it a fair trial, and the result of which was that five of the patients apparently made a recovery from the clinical point of view; and many of the writers upon the subject—amongst others, Manson, Scheube, Castellani and Chalmers, Morrow, Hutchinson, Sands, Ashburton Thompson, and Dyer—express opinions more or less favourable concerning it.

Owing in some instances to its depressent effect taken over a long period, it is usual to combine the administration with some form of tonic treatment which corrects this tendency, and this course is being followed out at the Lazaret, and along with it is also incorporated the use of hot carbonate of soda baths alternating with salt water ones. One or two of the patients at their own request are taking dugong oil, because there is a tendency to try everything that may be of benefit to them; but it has not been proved to exert any special influence over this disease comparable with the effects of the Chaulmoogra preparation.

#### OUTSIDE VISITS.

Visits were made to Stanthorpe and Morven with regard to the occurrence and persistence of typhoid fever in these towns, and in the latter town a gross departure and neglect of providing any sanitary rules was observed, with the continued existence of that insanitary juggernaut, the old cesspit, which should have been swept out of existence long ago and a properly constructed conservative system installed in its place. No proper garbage system existed in the town, refuse being thrown about here, there, and everywhere at random, the sanitary conscience seeming to have receded to a limit.



A report was drawn up and advice tendered with regard to bringing this town more into line demanded by modern sanitary requirements, without which they could not expect to rid themselves of the disease which hung over them at all times, threatening them with epidemic extension. Various sanitary defects and delinquencies were noticed in the former town, and they were referred to in a report and advice tendered for their subsequent amelioration and improvement.

#### RAT GANG.

The number of rats destroyed by the gang in the Metropolitan Area for the fiscal year was 19,046, an increase of 4,038, and 9,477 were examined bacteriologically.

Although there has been a considerable number in the increase of rats trapped, &c., in comparison with last year, still the number is insufficient for a city of the dimensions of Brisbane, seeing that it is extending itself rapidly in almost all directions, and the rats are still breeding in considerable numbers in their usual haunts and are bound to migrate further out in company with the population and establish new foci for breeding and development if means are not taken for building them off from human habitations, public buildings, wharves, &c.

Rat-proofing has been carried on during the year, but only in certain areas, and it is obviously useless to rat-proof some buildings and leave others untouched; to meet with any measure of success it must be done generally. Some authorities are so impressed with the necessity of carrying out this reform that the Commission Council of one city—notably New Orleans, where the plague prevailed as late as 1914—adopted an ordinance decreeing the rat-proofing of all structures in that city, and the Supreme Court has recently upheld the ruling as being a necessary measure for the protection of the community from the possibility of a plague outbreak, and decided that the necessity for and the extent of rat-proofing required by the ordinance was one of fact and public policy.

In Porto Rico, after the plague outbreak in 1912, the rat-proofing of public buildings was given the same attention as private property, and the interested co-operation of the different

Insular and Federal Government officials served to effect the rat-proofing of most of the Government constructions where the procedure was needed. Several thousand dollars were contributed towards carrying out the work. The chief plank in their campaign against the outbreak of bubonic plague in San Juan, 1912, was the quickest possible rat-proofing of the whole city, as it was recognised that merely to confine measures to individual foci of infection would not arrest the march of infection, and would be imperative to any early termination of cases, either rodent or human; and similar measures are needed here to render the city rat-proof. And the danger there is of the disease being brought to this State is a very near one, seeing the proximity to it of India, Java; China, Japan, &c., where plague is always more or less endemic and surging up in epidemic reprisals every now and then.

#### VACCINATION.

Has been carried on throughout the year, but has been sought chiefly by travellers, visitors, and officials going to the islands or abroad generally, but the general population seems to be still sunk in the apathy of indifference with regard to a matter which is of such vital importance to them, and, as always happens, will only awaken to the danger when it is in their midst again, brought to these shores from the older centres of civilisation by the returning troops or by people from the congested centres who are wending their way towards the country with the object of establishing a home beneath the Austral skies.

It is obviously useless quoting figures and statistics to prove the advantages of vaccination, as the general public is as impervious to figures as to bygone facts which do not immediately affect them, but they will probably have reason to regret in the not very distant future.

Periodical inspections were carried out on the various sanitary depôts of the Metropolitan Area during the year, and visits were made to outside cases with other members of the profession in aiding and confirming diagnoses in suspicious cases of many kinds.

Yours, &c.,

J. E. THOMSON, Health Officer.



## APPENDIX B.

## REPORT OF DIRECTOR, LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

Brisbane, 22nd August, 1916.

SIR,—I have the honour to submit the following report of the work done in the Laboratory during the year ending 30th June, 1916.

## PLAGUE.

An increased number of rats was examined during the year, but no evidence of rat plague was found.

Spleen smears from rats in the Northern coastal towns showed a large increase compared with last year, but in none of them was the plague bacillus found.

## TUBERCULOSIS.

A slightly increased number of sputa was examined for the tubercle bacillus, and the bacillus was found in a number that was absolutely and relatively less than last year.

## TYPHOID FEVER.

An increased number of bloods was examined for the Widal reaction. During the year a great increase occurred in the number of urines and faeces examined for the typhoid bacillus.

## DIPHTHERIA.

The number throat swabs examined for the diphtheria bacillus shows a slight decrease for the year, but the number of swabs on which the bacillus was found shows an increase of about 2 per cent.

## ENTHETIC DISEASES.

The number of specimens submitted by the Enthetic Diseases Dispensary showed a large increase. The results of the smears examined for the gonococcus suggested an increase in the prevalence of gonorrhœa. The blood sera examined for the Wassermann reaction showed a big increase, but the increase in the number giving a positive reaction was not quite in proportion to the increase in the number examined.

## MENINGITIS.

During the year a large increase occurred in the number of throat swabs examined for the meningococcus. The increase was due almost exclusively to work done for the military authorities. The number in which the meningococcus was found was very small, and I have no doubt that some swabs which, at the time of taking, held the meningococcus, at the time of examination failed to show it.

From a public health point of view this renders the attempted control of carriers practically futile.

The only remedy I can suggest is that arrangements be made with the military authorities so that swabs be taken and cultures made in a manner that would be likely to lead to more accurate results.

## CLINICAL WORK.

The usual amount of clinical work was done for medical men and hospitals during the year, with little of interest to record except that Bilharziosis has been imported from Egypt, and the parasite will in all probability find means in Queensland to carry on its life history.

The amount of work done in relation to the Pure Foods Act was very small. In connection with this I can say no more than I said last year. Food work properly done consumes a large amount of time, and with a staff smaller than last year, it is practically impossible to find time for any prolonged investigation.

## AUTOGENOUS VACCINES.

During the year there has been a slight diminution in the number of autogenous vaccines made, this being no doubt one of the effects of the war. During the year there has been a big increase in the amount of work done, with a decrease in the staff during the last third of the year. This has very frequently necessitated night work, so that if the work continues to increase, I cannot see how the present staff can continue to carry on the work as satisfactorily as in the past.

## EQUIPMENT.

When the laboratory was equipped five years ago, it was uncertain what branch of work would in the then future demand most attention. In consequence, an attempt was made to prepare as far as the funds allowed for every class of work. Time has shown that a small part of the equipment is seldom used, and the greater part is in constant use.

In the near future I anticipate that part of the equipment, which shows signs of wear and tear, will need replacing, and it would be well to add new equipment before an absolute breakdown occurs.

A tabular summary of the work above referred to will be found appended.

Your obediently,

JOHN J. HARRIS,  
Director.



TABLE GIVING PARTICULARS OF SPECIMENS EXAMINED AT LABORATORY OF MICROBIOLOGY DURING YEAR ENDING  
30TH JUNE, 1916.

*A.—Specimens Examined with view to Diagnosis.*

Disease Suspected.	Nature of Specimen.										Number.	Positive.
Plague .. ..	Human .. ..	..	..	..	..	..	..	..	..	..	2	..
	Rats .. ..	..	..	..	..	..	..	..	..	..	9,084	..
	Mice .. ..	..	..	..	..	..	..	..	..	..	677	..
	Bundaberg Rat Smears .. ..	..	..	..	..	..	..	..	..	..	1,278	..
	Rockhampton Rat Smears .. ..	..	..	..	..	..	..	..	..	..	1,276	..
	Townsville Rat Smears .. ..	..	..	..	..	..	..	..	..	..	1,701	..
	Cairns Rat Smears .. ..	..	..	..	..	..	..	..	..	..	754	..
	Maryborough Rat Smears .. ..	..	..	..	..	..	..	..	..	..	544	..
	Mackay Rat Smears .. ..	..	..	..	..	..	..	..	..	..	515	..
	Bowen Rat Smears .. ..	..	..	..	..	..	..	..	..	..	97	..
	Sputum .. ..	..	..	..	..	..	..	..	..	..	600	202
Tuberculosis .. ..	Pus .. ..	..	..	..	..	..	..	..	..	..	3	..
	Urine .. ..	..	..	..	..	..	..	..	..	..	6	..
	Cerebro-spinal Fluid .. ..	..	..	..	..	..	..	..	..	..	1	..
	Tissue .. ..	..	..	..	..	..	..	..	..	..	2	..
	Peritoneal Fluid .. ..	..	..	..	..	..	..	..	..	..	1	..
Typhoid .. ..	Fluid .. ..	..	..	..	..	..	..	..	..	..	1	..
	Blood .. ..	..	..	..	..	..	..	..	..	..	651	242
	Water .. ..	..	..	..	..	..	..	..	..	..	2	..
	Fæces .. ..	..	..	..	..	..	..	..	..	..	141	..
	Urine .. ..	..	..	..	..	..	..	..	..	..	275	..
Leprosy .. ..	Serum .. ..	..	..	..	..	..	..	..	..	..	69	30
	Tissue .. ..	..	..	..	..	..	..	..	..	..	1	..
Diphtheria .. ..	Throat Swabs .. ..	..	..	..	..	..	..	..	..	..	6,284	974
	Nasal Swabs .. ..	..	..	..	..	..	..	..	..	..	2	..
Gonorrhœa .. ..	Pus .. ..	..	..	..	..	..	..	..	..	..	996	76
Syphilis .. ..	Blood .. ..	..	..	..	..	..	..	..	..	..	656	287
	Cerebro-spinal Fluid .. ..	..	..	..	..	..	..	..	..	..	2	..
	Smear .. ..	..	..	..	..	..	..	..	..	..	1	..
Malaria .. ..	Blood .. ..	..	..	..	..	..	..	..	..	..	2	..
Ringworm .. ..	Scalp Hairs .. ..	..	..	..	..	..	..	..	..	..	1	..
Ankylostomiasis .. ..	Fæces .. ..	..	..	..	..	..	..	..	..	..	7	6
Bilharzia Hæmatobia .. ..	Urine .. ..	..	..	..	..	..	..	..	..	..	2	1
Meningitis .. ..	Swabs .. ..	..	..	..	..	..	..	..	..	..	1,397	32
	Spinal-fluid (Cerebro) .. ..	..	..	..	..	..	..	..	..	..	20	4
	Blood Smears .. ..	..	..	..	..	..	..	..	..	..	1	..
	Membrane from Throat .. ..	..	..	..	..	..	..	..	..	..	1	..
	Brain and Spinal Cord .. ..	..	..	..	..	..	..	..	..	..	1	..
	Pus .. ..	..	..	..	..	..	..	..	..	..	2	1
	Blood .. ..	..	..	..	..	..	..	..	..	..	3	..
	Blood .. ..	..	..	..	..	..	..	..	..	..	3	..
	Blood .. ..	..	..	..	..	..	..	..	..	..	1	..
	Fæces .. ..	..	..	..	..	..	..	..	..	..	2	..
Dysentery .. ..	Fæces .. ..	..	..	..	..	..	..	..	..	..	1	..
Vincent's Angina .. ..	Throat Swab .. ..	..	..	..	..	..	..	..	..	..	1	..
Medico-Legal .. ..	Articles of clothing, vaginal swabs, etc., for spermatozoa .. ..	..	..	..	..	..	..	..	..	..	35	4
	Articles of clothing, two pieces of bottle, one razor handle, one razor blade, candlestick, carving knife, for human bloodstains .. ..	..	..	..	..	..	..	..	..	..	27	18
	Tissue for evidence of pregnancy .. ..	..	..	..	..	..	..	..	..	..	1	..
	Tissues .. ..	..	..	..	..	..	..	..	..	..	128	..
											27,258	

*B.—Statement of Vaccines Made.*

Disease Suspected.	Nature of Specimen.										Organism.	No.
Autogenous .. ..	Pus, suppurative arthritis .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
Vaccines .. ..	Pus, sinus of Arm .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus from Boil .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	7
	Pus from Arm .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus from Carbuncle .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	2
	Pus from Sore .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus from Abscess .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus from Sinus .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	5
	Culture from Mouth .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Blood .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	2
	Urine .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	2
	Sputum .. ..	..	..	..	..	..	..	..	..	..	Staph-Aureus .. ..	1
	Pus from Teeth and Gums .. ..	..	..	..	..	..	..	..	..	..	Streptococci .. ..	4
	Pus .. ..	..	..	..	..	..	..	..	..	..	Streptococci .. ..	1
	Sputum .. ..	..	..	..	..	..	..	..	..	..	Streptococci .. ..	8
	Fæces .. ..	..	..	..	..	..	..	..	..	..	Streptococci .. ..	1
	Blood .. ..	..	..	..	..	..	..	..	..	..	Streptococci .. ..	1
	Urine .. ..	..	..	..	..	..	..	..	..	..	Coliform Bacilli .. ..	9
Carried forward .. ..											..	50



TABLE GIVING PARTICULARS OF SPECIMENS EXAMINED AT LABORATORY OF MICROBIOLOGY DURING YEAR ENDED 30TH JUNE, 1916—continued.

*B.—Statement of Vaccines Made—continued.*

Disease Suspected.	Nature of Specimen.	Organism.	No.
Vaccines .. ..	Brought forward .. ..		50
	Sputum .. ..	Diplococci .. ..	5
	Nasal Mucus .. ..	M. Catarrhalis .. ..	1
	Pus from Knee .. ..	B. Pyocyaneus .. ..	1
	Pus, Lumbar Sinus .. ..	B. Pyocyaneus .. ..	1
	Pus (Acne Case) .. ..	Staph-Albus .. ..	1
	Nasal Discharge .. ..	Diphtheroid Bacilli .. ..	1
	Sputum .. ..	Pneumococci .. ..	1
	Pus .. ..	Gonococci .. ..	1
	Pus from Leg .. ..	Mixed Organisms .. ..	1
	Pus from Empyema .. ..	Mixed Organisms .. ..	1
	Pus from Kidney .. ..	Mixed Organisms .. ..	1
	Pus from Boil .. ..	Mixed Organisms .. ..	1
	Pus .. ..	Mixed Organisms .. ..	3
	Mucus .. ..	Mixed Organisms .. ..	1
Autogenous Vaccines .. ..	Mucus from Throat .. ..	Mixed Organisms .. ..	1
	Sputum .. ..	Mixed Organisms .. ..	17
	Nasal Swab .. ..	Mixed Organisms .. ..	1
	Throat and Nasal Swabbing .. ..	Mixed Organisms .. ..	1
	Urine .. ..	Mixed Organisms .. ..	4
Stock Culture .. ..	Cerebro-spinal Fluid .. ..	Meningococci .. ..	1
		Meningococci doses .. ..	25
		Pneumococci doses .. ..	9
		B. Typhosus doses .. ..	8,677
			8,806

*C.—Miscellaneous.*

Disease Suspected.	Nature of Specimen.	Number.
Miscellaneous .. .. .	Water .. .. .	73
	Foods—Ice-cream, Ices, Milk, Cream, Fish, etc. .. .. .	78
	Disinfectants .. .. .	28
	Filters .. .. .	5
	Urine, Coliform Bacilli .. .. .	5
	Urine, General Examination Pus, Sugar .. .. .	11
	Blood, Corpuscle enumeration .. .. .	7
	Blood, differential Leucocyte count .. .. .	13
	Blood Hæmoglobin estimation .. .. .	3
	Cerebro-spinal Fluid, differential count .. .. .	1
	Mucus from Bladder .. .. .	1
	Fæces for Worms .. .. .	1
	Vegetable Material for sterility .. .. .	3
	Mud .. .. .	3
	<i>Examination for Bacteria.</i>	
	Urine .. .. .	13
	Cultures .. .. .	12
	Pus .. .. .	9
	Sputum .. .. .	6
	Spinal Fluid .. .. .	6
Brain and Fluid .. .. .	1	
Fluid .. .. .	5	
Blood .. .. .	3	
Swabs .. .. .	2	
Fæces .. .. .	2	
Spleen .. .. .	1	
Mutton .. .. .	1	
Ear and Throat Swabs .. .. .	2	
Serum .. .. .	1	
		296



## APPENDIX C.

## REPORT OF MEDICAL OFFICER FOR ENTHETIC DISEASES.

Brisbane, 30th June, 1916.

SIR,—I have the honour to submit the following report of work performed by me at the Enthetie Diseases Dispensary and at the Examination Rooms at William Street for the year ended June 30th, 1916.

## EXAMINATION ROOMS.

The number of women examined during the year was 884. Blood was taken for the carrying out of the Wassermann test in 310 cases. Of this total number of women 63 were new cases—that is, had not been offering themselves for examination previous to this last year.

As a result of the examination, 86 women were found to be suffering from either gonorrhœa or syphilis and were committed to the Enthetie Diseases Ward at the Brisbane General Hospital on a Police Magistrate's order. The usual treatment was carried out at the hospital, and results in the great majority of cases were very good. Most of the patients were very amenable to discipline, and little or no trouble was experienced in connection with the ward.

It is greatly to be regretted that there is not some means of compelling a larger number of the prostitutes of Brisbane to submit themselves for examination at regular intervals. At present only a small percentage so present themselves, and the benefit accruing from the system as now in force is consequently not nearly so great as it might be.

## ENTHETIC DISEASES DISPENSARY.

This portion of the work is carried out at the out-patients department of the Brisbane

General Hospital on four days a week. The total number of attendances at the Dispensary during the year was 2,922; of these 2,887 were males and 35 females. Results again were uniformly good, and the patients were made to realise the seriousness of venereal disease and the precautions to be taken to avoid communicating the disease to innocent persons. Most of the patients were regular in their attendance and persistent in treatment until the disease was completely eradicated. Cases which were not suitable for out-patient treatment were recommended for admission to the wards of the hospital, and were treated there until well enough to return to the out-patients' department.

The work in this department was somewhat hampered by our inability to obtain Salvarsan for the treatment of syphilis. This is to be regretted, as without this drug patients remain for a much longer period in an acutely infectious condition, and in this way the risk of innocent persons contracting the disease, and especially of the members of the patient's family doing so, is greatly increased. This has now been remedied, as a supply of Arsenobenzol has been received. I wish to thank the Superintendent, Medical Officers, and Nursing Staff of the General Hospital, and Nurse Cruise, of the Health Department, for their courtesy and for assistance rendered me during the year.

I have, &c.,

H. S. WALSH, M.B., Ch.M.,  
Medical Officer.



## APPENDIX D.

## REPORT OF GOVERNMENT ANALYST.

Government Chemical Laboratory,  
Brisbane, 28th July, 1916.

SIR,—I have the honour herewith to submit my report for the year 1915-16, in accordance with section 31 of the Health Act.

The number of samples examined during the year was 1,488, a decrease from the previous years of 181 samples. The decrease in the number of fresh milk samples more than accounts for the total decrease. The work done during the year is shown in the following table:—

Food or Drug.	Total Number of Samples.	Samples Passed.	Samples Failed.
Baking powder .. .. .	31	23	8
Beer .. .. .	7	4	3
Beverages and cordials .. .. .	89	55	34
Brandy .. .. .	36	7	29
Bread .. .. .	3	3	..
Butter .. .. .	2	2	..
Cheese .. .. .	2	1	1
Coffee .. .. .	2	1	1
Colourings and dyes .. .. .	10	2	8
Condiments .. .. .	4	..	4
Confectionery .. .. .	11	5	6
Cream of tartar .. .. .	43	30	13
Custard, cake, and pudding powders .. .. .	24	21	3
Disinfectants .. .. .	2	1	1
Drugs and medicines .. .. .	77	73	4
Essences .. .. .	37	23	14
Fish, tinned .. .. .	88	75	13
Fish, not tinned .. .. .	10	6	4
Flours .. .. .	14	14	..
Fruit crystals .. .. .	3	..	3
Fruit, dried .. .. .	6	2	4
Fruit, tinned .. .. .	2	1	1
Gin .. .. .	7	4	3
Ice-cream and ices .. .. .	12	10	2
Jams and jellies .. .. .	30	27	3
Margarine .. .. .	7	7	..
Meats, tinned .. .. .	13	7	6
Meats, not tinned .. .. .	52	29	29
Milk, condensed .. .. .	6	6	..
Milk, dried .. .. .	3	3	..
Milk, fresh .. .. .	455	370	85
Miscellaneous .. .. .	77	65	12
Oils, essential, medicated, etc. .. .. .	31	24	7
Peas, tinned .. .. .	2	..	2
Rum .. .. .	17	9	8
Sauces .. .. .	4	4	..
Soap .. .. .	9	7	2
Spices .. .. .	5	1	4
Tobacco .. .. .	4	..	4
Toilet preparations .. .. .	74	69	5
Vegetables, tinned .. .. .	13	12	1
Vinegar .. .. .	4	1	3
Whisky .. .. .	60	6	54
Wine .. .. .	29	27	2
	1,417	1,037	380
Water (for potability) .. .. .	32		
Waters (W. and S. Board) .. .. .	39		
	1,488		

The miscellaneous samples consisted of hydrometers, mushrooms, rennet tablets, rat poison, Bitacreame, apple pulp, barley meal, carraway seeds, sauerkraut, beer pipe, flux, cake, face pad, fly killer, galvanit, serpents' eggs, smokodor, sarsa rouser, tartarie acid, fixo-pest, alkali, alum,

orlex compound, virol, bitumastic solution, carbon enamel, foam heading, brain, glue, biscuits, formalin, wyandotte, currants and raisins, lax, Dutch cleanser, cocoa, cream, honey, pepper, pickles, preservatives, rice, salt, and sewage effluent.



Of the total number of samples submitted, 687 were “legal” samples taken by inspectors strictly in accordance with the provisions of the Health Act. The results are summarised in the following table:—

Food or Drug.	No. of Samples.	Passed.	Failed.	Unfit for Analysis or Lost in Transit.	Prosecutions.	Convictions.	Fines and Costs.
							£ s. d.
Beer .. .. .	2	..	2	..	..	..	..
Beer pipe .. .. .	1	..	1	..	..	..	..
Beverages and cordials .. .. .	38	22	16	..	6	6	15 8 8
Biscuits .. .. .	4	1	3	..	..	..	..
Brandy .. .. .	31	7	23	1	6	6	40 17 6
Bread .. .. .	3	3	..	..	..	..	..
Cake .. .. .	1	1	..	..	..	..	..
Corned beef .. .. .	1	..	1	..	..	..	..
Cream .. .. .	1	..	1	..	..	..	..
Cream of tartar .. .. .	18	10	8	..	3	3	15 16 8
Currants and raisins .. .. .	3	3	..	..	..	..	..
Essences .. .. .	2	1	1	..	..	..	..
Ginger .. .. .	1	1	..	..	..	..	..
Gin .. .. .	5	4	1	..	2	2	8 9 0
Lead (from butcher's block) .. .. .	2	..	2	..	..	..	..
Milk, fresh .. .. .	442	349	79	14	59	58	579 10 6
Mincedmeat and sausages .. .. .	47	28	19	..	13	13	86 13 6
Pepper .. .. .	1	..	1	..	..	..	..
Rum .. .. .	15	6	9	..	2	2	11 17 11
Sardines .. .. .	4	..	4	..	..	..	..
Tartaric acid .. .. .	7	7	..	..	..	..	..
Whisky .. .. .	55	6	49	..	12	12	51 14 5
Wine .. .. .	3	2	1	..	..	..	..
	687	451	221	15	103	102	810 8 2

In those samples that are close to the standard or only slightly adulterated, a warning is given in the first instance by the Health Department. The two samples of beer submitted, which were taken from different hotels using lead pipe, contained lead at the rate of 0.25 grains per gallon. This evidence indicates the wisdom of prohibiting the use of lead piping for beer pumps. Four firms were prosecuted and fined for adding potassium iodide (a potent mineral drug) to compound cordials. The proportion of potassium iodide present ranged from 3 to 14.5 grains per pint. These prosecutions were very necessary, as potassium iodide is a drug that should not be foisted indiscriminately and surreptitiously on the public. The cream of tartar samples that failed to pass the standard consisted wholly or in part of acid calcium phosphate or acid sodium phosphate and starch. Although these acid phosphates can be used in place of cream of tartar in baking powder, they are certainly not substitutes for cream of tartar when considered from a medicinal standpoint. The 19 samples of mincemeat and sausages were condemned for the presence of excessive amounts of sulphite preservative, the excess ranging from 5 to 500 per cent. in excess of the maximum proportion allowed by the Regulations.

In the case of the spirituous liquors, 105 of which were submitted by the inspectors as just

on or below standard, 71 were found to be below the standard. All these were condemned for adulteration with water, and in a few instances also for the presence of dirt and flies. The proportion of water added ranged from 1 to 40 per cent.

The position with regard to the 442 “legal” samples of milk submitted is as follows:—

	No. of Samples.	Percentage of Total.
In conformity with the standard ..	333	75.3
Genuine milks below the standard ..	16	3.6
Adulterated with water .. ..	70	15.8
Deficient in fat .. .. .	9	2.1
Unfit for analysis and lost in transit..	14	3.2
	442	100.0

One of the most significant features in connection with the milk samples submitted was the large number (16) of genuine milks that failed to meet the standard. These samples were distributed as follows:—

South Brisbane Railway Station	8 samples
South Brisbane Cart Supply ..	3 samples
North Brisbane Railway Station	2 samples
North Queensland .. .. .	3 samples

These abnormal samples are obviously the result of the abnormal drought conditions with the resulting absence of suitable food.



The following table shows the result of the milk inspection (legal samples only), set out according to localities:—

Locality.	No. Samples.	Failed.	Percentage Failed.	Average % Added Water.
Brisbane North .. .. .	134	16 (14 watered ; 2 deficient in fat) ..	12	12
Brisbane South .. .. .	91	12 (12 watered) .. .. .	13	13
Brisbane Railway Stations ..	34	5 (watered) .. .. .	14	5
Brisbane Restaurants .. ..	20	.. .. .	..	..
Bundaberg .. .. .	11	3 (watered) .. .. .	27	26
Cairns .. .. .	6	.. .. .	..	..
Charters Towers .. .. .	8	(1 watered) .. .. .	12	37
Childers .. .. .	1	.. .. .	..	..
Cooktown .. .. .	2	2 (watered) .. .. .	100	9
Gayndah .. .. .	5	5 (watered) .. .. .	100	9
Gladstone .. .. .	3	3 (watered) .. .. .	100	33
Gympie .. .. .	9	2 (1 watered ; 1 deficient in fat) ..	22	7
Hughenden .. .. .	6	1 (deficient in fat) .. .. .	16	..
Innisfail .. .. .	3	2 (watered) .. .. .	66	6
Ipswich .. .. .	12	Nil .. .. .	..	..
Kingaroy .. .. .	4	4 (deficient in fat) all from same owner	100	..
Mackay .. .. .	10	.. .. .	..	..
Maryborough .. .. .	11	4 (watered) .. .. .	36	7
Nambour .. .. .	4	1 (watered) .. .. .	25	19
Nanango .. .. .	3	1 (watered) .. .. .	33	5
Rockhampton .. .. .	17	6 (5 watered ; 1 deficient in fat) ..	35	14
Sandgate .. .. .	6	.. .. .	..	..
Stanthorpe .. .. .	5	.. .. .	..	..
Toowoomba .. .. .	12	1 (watered) .. .. .	8	8
Townsville .. .. .	15	8 (watered) .. .. .	53	28
Warwick .. .. .	9	1 (watered) .. .. .	11	25
(Tinned Milk) .. .. .	1	1 (watered) .. .. .	100	9
	442	79 (70 watered ; 9 deficient in fat) ..	17·8	14·7

The following table shows the progress of the milk campaign during the last nine years, the results being those obtained from legal samples:—

Year.	No. of Samples.	No. of Samples Failed.	Percentage Failed.	Average % of Added Water.
1907-1908 ..	66	37	56	8·7
1908-1909 ..	158	64	40	10·0
1909-1910 ..	78	19	24	8·3
1910-1911 ..	122	28	23	7·9
1911-1912 ..	265	69	26	12·0
1912-1913 ..	419	60	14	14·0
1913-1914 ..	385	57	15	13·5
1914-1915 ..	609	96	16	17·4
1915-1916 ..	442	79	17·8	14·7

The total number of samples taken is still far below what is necessary to ensure a pure milk supply. The saving to consumers through stopping or reducing to very small dimensions the watering of milk would pay several times over for the increased staff necessary to take and analyse an adequate number of samples. Several of the drugs submitted failed to reach the standard or were adulterated. One lot of “aspi-

rin,” manufactured in Victoria, contained no aectyl salicylie acid at all, but consisted of salol, magnesia, silica, and sodium salts. Two other samples contained only 86 and 79 per cent., respectively of aectyl salicylic acid.

The samples of drugs and medicines recorded as having failed are only those that were adulterated. A very large proportion of those examined will have to modify the extravagant claims made on the labels. One sample of tartaric acid submitted consisted of sodium nitrate, and contained only 1·4 per cent. of tartaric acid. As a result probably of the campaign against blown tinned fish during the last two years, there has been a very marked improvement in the quality of the supply, and Queensland now rarely gets any of the doubtful shipments.

I have, &c.,  
J. BROWNLIE HENDERSON,  
Government Analyst.

The Commissioner of Public Health,  
Brisbane.



APPENDIX E.

REPORT OF NURSES' REGISTRATION BOARD.

Nurses's Registration Board,  
Department of Publie Health,  
Brisbane, 10th August, 1916.

SIR,—I have the honour to furnish the Annual Report of the Nurses' Registration Board for the year ended 30th June, 1916.

During the period under review 12 general and 2 speeial meetings were held, and the following members of the Board were present:—

—	General.	Special.	Total.
Dr. Ellerton.. ..	7	2	9
Dr. J. M. Thomson ..	11	2	13
Miss Macdonald .. ..	12	2	14
Miss Chatfield .. ..	12	2	14

On 30th May, 1916, Dr. Thomson resigned as a member of the Board, and Dr. Halford was appointed on the 29th June to fill the vacaney.

The following registrations were granted during the year by examination:—General, 94; midwifery, 33; mental, 13; total, 140; as against general, 47; midwifery, 26; mental, 4; total, 77, for the preceding year. To these may be added registrations made under section 154E of "*The Health Acts, 1900 to 1911*," viz.:—General, 14; midwifery, 33; mental, 2; total, 49; as against general, 10; midwifery, 16; mental, nil; total, 26, for the preceding year, making a grand total of 189 registrations for the year under review.

A satisfactory feature regarding the examinations held by the Board is the high standard of efficieney shown by the eandidates; for this result eulogy must, to a large extent, be given to the careful training received at the hands of the hospital staff at the various training schools.

The following averages in passes of examinations of each eategory are of interest:—General, 94 per cent.; midwifery, 82.5 per cent.; mental, 56.5 per cent. During the year three examinations for qualifications as general nurses were held, one in September, 1915, one in January, 1916, and one in March, 1916; and two examinations for qualifieations as midwifery and mental nurses is September, 1915, and Mareh, 1916. The intermediary examination held in January, 1916, for general nurses was to relieve the position in respect to the number of eligible nurses offering their serviees to the military authorities, and with this aim in view it was decided to allow eandidates who would, after three months from the date of the last examination, have completed a full course of training to present themselves. Examining eentres, with examiners for the praetieal and oral seetions, were seleeted from the medical and nursing representatives of the various towns in eonnection with the examinations at the following places:—

General.	Midwifery.	Mental.
Brisbane Toowoomba Rockhampton Townsville Bundaberg Charters Towers Mackay Cairns	Brisbane Rockhampton Bundaberg Toowoomba	Goodna Toowoomba Ipswich

The Official List of Nurses registered in this State was published in the *Government Gazette* of the 28th January, 1916. Reports received from the various recognised hospitals show that there are 469 general nurses, 53 midwifery nurses, and 143 mental nurses in training.

Particulars as to the number of nurses undergoing training in each hospital appear hereunder:—

GENERAL HOSPITALS.	
Alexandra .. ..	5
Brisbane General Hospital .. ..	64
Bundaberg General Hospital .. ..	17
Charters Towers General Hospital .. ..	26
Cairns District Hospital .. ..	13
Diamantina Hospital for Chronic Diseases ..	25
Gladstone General Hospital .. ..	10
Gympie General Hospital .. ..	12
"Hillcrest " Private Hospital (Rockhampton) ..	13
Hospital for Sick Children (Brisbane) .. ..	48
Hospital for Sick Children (Rockhampton) ..	6
Ingham General Hospital .. ..	3
Ipswich General Hospital .. ..	28
Longreach General Hospital .. ..	6
Mackay District Hospital .. ..	25
Maryborough General Hospital .. ..	14
Mater Misericordiæ Hospital, Brisbane .. ..	15
Mount Morgan General Hospital .. ..	6
Mater Misericordiæ Private Hospital, Rockhampton .. ..	*
Peak Downs Hospital, Clermont .. ..	6
Rockhampton General Hospital .. ..	25
Roma General .. ..	9
"St. Denis " Private Hospital, Toowoomba ..	5
"St. Helen's " Private Hospital, South Brisbane	10
Stanthorpe General Hospital .. ..	2
Dalby General Hospital .. ..	5
Townsville General Hospital .. ..	23
Toowoomba General Hospital .. ..	25
Warwick General Hospital .. ..	19
"Wilga " Private Hospital, Toowoomba ..	*
Kennedy Hospital, Bowen .. ..	4
Lister Private Hospital, Mackay .. ..	*
469	

MIDWIFERY HOSPITALS.	
Lady Bowen, Brisbane .. ..	18
Lady Chelmsford, Bundaberg .. ..	8
Lady Musgrave, Maryborough .. ..	12
Women's Hospital, Rockhampton .. ..	8
Mother's Hospital, Toowoomba .. ..	7
53	

MENTAL HOSPITALS.	
Goodna .. ..	87
Ipswich ....	25
Toowoomba .. ..	31
143	
* No return.	

The list of recognised training hospitals was published in the *Government Gazette* of the 15th March, 1916.

The total collections of fees amounted to £159 odd.

The fees received for registrations show a considerable increase over the preeeding year's collections, and this would be larger still, but mental nurses engaged in Government institutions have been allowed to sit for examination without being ealled on to pay the fee of 20s. as provided for; this eoneession also applies to all other eategories of registration for mental nurses.



The cost of purchasing and engraving badges during the year amounted to £22 6s. 10d.

The fees paid to members of the Board not holding Government appointments totalled £25 4s.

The number of nurses in training throughout the State shows a considerable increase, and, judging by reports received from some centres, the number of applicants for entrance as probationers is so numerous that in one centre alone only 1 per cent. could be accepted.

Section 153N of "*The Health Acts, 1900 to 1911*" in respect to lying-in hospitals having been gazetted in force to the numerous centres of population throughout the State, it is now incumbent on maternity nurses to be registered in order to obtain permits for their homes to receive maternity cases. This, to a large extent,

has caused midwives to seek registration. The total number of registrations since the inception of the Board in February, 1912, amounts to—

General	..	..	868
Midwifery	..	..	822
Mental	..	..	142

The personnel of the Board consists of Dr. McLean (Chairman, now absent at the Front), Dr. Ellerton (Acting Chairman), Dr. Halford, Misses Chatfield and Macdonald, and L. E. Melish (Secretary).

Yours, &c.,

H. BYAM ELLERTON,  
Acting Chairman.

The Commissioner of Public Health,  
Brisbane.





## APPENDIX F.

## REPORT OF CHIEF SANITARY INSPECTOR.

Department of Public Health, Queensland,  
Brisbane,

SIR,—I have the honour to submit the annual statement of the work performed by the Sanitary Section of the Department on matters concerning the public health within the State for the fiscal year ending 30th June, 1916.

## METROPOLITAN AREA.

During the investigation of nuisances within this area, it not infrequently happens that the officers of the Department are accompanied by the inspectors or other representatives of the Local Authorities who work in harmony, and numerous matters adversely affecting the public health are dealt with in a manner satisfactory to all concerned. Areas are assigned to each officer in which to carry out inspection when not engaged on duty in other parts of the State.

## VISITS OF INSPECTION.

One thousand six hundred and thirty-one visits of inspection have been made, nuisances and sanitary defects noted, and the Local Authorities concerned notified. The above inspections do not include reinspections in order to ascertain results. One hundred and thirteen intimations of nuisance notices have been forwarded to the various Local Authorities in this connection.

## SEASIDE SUMMER CAMPS.

The sanitary comforts of visitors to all the seaside camping resorts have been kept under supervision, and as opportunity offers similar watering-places in other parts of the State are not neglected. As a result of the Department's efforts a marked improvement is noticeable, and Local Authorities now recognise their duty in this connection.

The attention of the responsible authorities in charge of Mount Coot-tha (One-Tree Hill) has been directed to the absence of adequate public conveniences at this much frequented pleasure ground, and it is expected that improvements in this respect will eventuate.

## CONSERVANCY SYSTEM.

As in former years, repeated surprise visits of inspection have been made to all the sanitary depôts, and it is satisfactory to report that no faults or alteration in the methods of disposal have had to be brought under notice for attention.

## MILITARY HYGIENE.

During the year some fourteen military training camps have been inspected weekly. The sanitary regulations of the Army authorities are uniformly strict, and in the main effective, nevertheless, with the co-operation and advice of this Department, numerous improvements have been effected from time to time, and it is conceded by those in authority that the Queensland camps compare more than favourably with those in other parts of the Commonwealth. The inspection of these camps still continues as part of our Departmental routine.

Cases of notifiable infectious diseases in the Metropolitan Area have entailed the disinfection of 1,228 premises. An occasional case of leprosy is also reported and the necessary measures regarding segregation taken, together with the disinfection of the railway carriages and steamers used for the transport of lepers to the Lazaret from the Northern portions of the State not yet brought into direct contact with Brisbane by railways. The homes occupied by the patients are also suitably disinfected. The emergency tent hospital equipment has been overhauled and thoroughly aired on various occasions during the year, and is always ready for immediate use.

## BREACHES OF THE SPITTING REGULATIONS.

Three prosecutions for breaches of the spitting regulations were proceeded with, and convictions recorded in all cases. A fine of 10s. 6d. and 3s. 6d. costs was inflicted in one instance; £2, including costs, in another; and £2 2s. with 3s. 6d. costs in the third case. The filthy habit of expectorating on the pavements of the city is not nearly as common as formerly.

The following vessels have been cyanided and fumigated at the cost of and request of the owners, for the destruction of rats and other vermin. A few of the steamers have had suites of cabins disinfected that were occupied by persons suffering with infectious diseases:—

*Passenger Steamers.*

Aramac	Wyreema
Bingera	Wodonga
Matthew Flinders	Wyandra

*Government Dredges and River Craft.*

Bream	Maryborough
Casuarina	Pumba
Dolphin	Platypus
Junee	Stingaree.

## POLLUTION OF STREAMS.

The pollution of streams and natural water-courses in various parts of the State has been engaging the attention of the Department for some considerable time. Matters have reached such a stage regarding the contamination of several of these by the discharge of sewage and trade wastes, principally from woolscours, fellmongeries, and tanneries, that nothing short of drastic measures by the Government, taken under the provisions of "*The Rights in Water and Water Conservation and Utilization Act of 1910*," will prove effective. Local Authorities appear to be apathetic, though the Department has endeavoured to get them to move in the matter of having these nuisances occurring within their areas abated. The purification of trade wastes such as referred to is a difficult problem to solve. World-wide inquiries have been made at the centres of similar industries, and it has been ascertained that various methods are adopted, some of which have proved fairly effective, according to the documentary matter and reports received. This information has been placed at the disposal of shire councils concerned. According to recent publications on this complex problem, the purification of the aforesaid



trades' waste water has been successfully accomplished, and there need be no hesitation in taking the necessary action for preventing the pollution of streams within the Metropolitan Area and the State generally by such trade wastes.

#### PLAGUE PREVENTION.

As in former years, this work has been energetically carried out by the Department both at the Port of Brisbane and at all the principal seaport towns as far North as Cairns. The Local Authorities of both North and South Brisbane, Maryborough, Rockhampton, and Townsville have for a number of years employed a rat-man to work in conjunction with the departmental operatives engaged on this duty, with gratifying results.

During the past twelve months no infested rats have been found within the State. A total of 19,046 rats and 720 mice have been destroyed in Brisbane during the year, and 18,401 rats and 1,060 mice at the various coastal towns where operations are carried on, making a grand total of 39,207 rodents actually accounted for within the State, irrespective of the large number that cannot be accounted for as the result of poisoning operations, as only a small proportion of these are recovered. All rodents caught in Brisbane that were fit for examination have been sent to the Laboratory of Microbiology and Pathology for examination. Some 9,477 have been dealt with accordingly. The departmental men at Northern centres have been trained in the dissection of rats, and blood smears from the rats' spleens were forwarded on microscope slides to the Laboratory weekly. By this means the Department has been kept in thorough touch with existing conditions at the various centres and ever ready to act promptly should occasion arise.

One hundred and ten thousand six hundred poison baits have been supplied to the Municipal Councils of North and South Brisbane for the use of the men engaged by them in rat destruction; 872 lb. of poison have been manufactured by the departmental gang for use within the State, supplies being forwarded to the Northern centres as required; 76½ lb. of poison have been sold to the public in the form of prepared baits or paste for use on their own premises. Sufficient time has not yet elapsed since the passing of the new Rat Destruction Regulations to determine whether the local authorities in Queensland will be able to carry on the work of rat destruction in as successful a manner as has been obtained in the past by the highly organised gang employed by the Government. As you are aware, the gang has been disbanded, with the exception of a few men who have been kept on to attend to the Government property and to premises where we had entered into agreements for stated periods.

During the fiscal year the men employed by the North and South Brisbane Municipal Councils brought to the Market Wharf 147 and 557 rats, respectively. These are included in the grand total beforementioned.

With the passing of the new Regulations, which came into force in the month of May, the rat-proofing of premises that had been such a marked and successful feature of our operations became a thing of the past, the services of the working gang being dispensed with along with the other men.

During the year we have received letters couched in appreciative terms from owners of property for the satisfactory and workmanlike manner in which we carried out the work entrusted to our charge. Attached herewith is a summary of the work done by the Department, together with that carried out by contractors, architects, and builders under our supervision.

Photographs are also attached showing examples of rat harbourage before and after the completion of the operations. The total cost of the work executed by the departmental working gang amounted to the sum of £1,142 0s. 10d.

#### RAT-PROOFING.

##### *Work carried out by the Departmental Gang.*

Concrete baffle walls sunk 2 feet into ground and carried up to support the embankment in made-up ground, and also sunk round cement floors and other paved surfaces where formerly rats harboured—17,698 sq. ft.

Concrete floors laid to replace defective floors and other constructional defects—4,360 sq. ft.

Galvanised iron sunk 2 feet deep into ground around temporary or dilapidated structure subject to alteration or demolition to prevent rats burrowing under same—690 sq. ft.

Holes and other defects in hotel cellars and other basement walls built up and pointed with cement—540 sq. ft.

Rubble retaining walls faced up with cement where formerly rats harboured—1,807 sq. ft.

Earth embankment battered down so as to prevent rats from burrowing in same—147 sq. ft.

Rubble work pulled down to destroy harbourage—235 sq. ft.

Dividing fences renewed and fixed on top of cement walls supporting embankment on made-up ground—670 lineal ft.

Dividing fences raised, and posts set in cement baffle walls—616 lineal ft.

Earth closets raised 1 ft. clear of ground to prevent rats harbouring under same—12.

Earth closets repaired—6.

Windows screened to prevent ingress of rats into buildings—3.

Footpath gratings screened—2.

Door ledges protected with iron where rats had gnawed an entrance—5.

Drains repaired and relaid—24 lineal ft.

Loads of rubbish removed—49 loads.

Floors and other timber work repaired—405 sq. ft.

Partition wall in cellar built up with brick—108 sq. ft.

##### *Work done by the Contractors.*

Cottages built low on the ground affording rat harbourages demolished and re-erected on 6-foot stumps—2.

Concrete baffle walls 2 feet in ground, &c.—2,259 sq. ft.

Iron baffle walls sunk 2 feet—661 sq. ft.

Concrete floors laid to replace defective floors and other constructional defects—1,492 sq. ft.





Photograph of a deposit of human faeces in Chinaman's garden near Brisbane city. Showing the vital necessity of scrupulously cleaning vegetables retailed or grown by Chinamen.









How rats are encouraged. Harbourage in made-up ground under galvanised fence. Adjacent fowl-run with food-scraps of all descriptions in foreground.









Photograph showing concrete baffle walls in front of embankment where rats formerly harboured in made-up ground.



Typical rat harbourage; an alignment of a made-up street.







Brick floors laid—300 sq. ft.

Rubble walls pointed up with cement compo.—960 sq. ft.

Brick baffle walls—1,110 sq. ft.

Windows screened—40 sq. ft.

Holes patched and pointed up—66 sq. ft.

Retaining walls erected in brick and concrete—2,308 sq. ft.

New earth closets erected in brick and cement to replace old dilapidated wooden structure—9.

Earth closets abolished—10.

Rubbish removed—4 loads.

#### OTHER PARTS OF THE STATE.

A considerable proportion of the departmental officers' time for the past year has been devoted to health matters in the outlying portions of the State. It will be observed that there is a great similarity in the sanitary conditions of the various townships inspected. During the investigations of local nuisances some member of the Health Committee or the local Council's inspector not infrequently has accompanied the visiting State Health Inspectors on their rounds of inspection. In this way the State Health Inspectors become well acquainted with their respective districts and are thus in a better position to deal with them by advising and directing in matters of sanitary executive which tend to beneficially affect the public health.

Valuable results have accrued in the case of the smaller isolated communities in matters of drainage and general sanitation and in relation to the prevention and spread of communicable diseases dangerous to public health.

In many instances, although there are night-soil disposal systems in vogue, the compulsory removal of garbage has been ignored or lost sight of by local governing bodies. The voluntary removal of refuse, or when someone makes a complaint as the result of a nuisance, is by no means satisfactory. It is, therefore, necessary to insist on a complete conservancy system by the local authorities, whether they let this work by contract or keep the franchise in their own hands.

Five thousand two hundred and twelve visits of inspection have been made, and 406 intimation of nuisance notices have been forwarded to Local Authorities drawing attention to matters requiring action.

The total mileage travelled by the sanitary staff on their various tours of inspection throughout the State during the year amounts to 15,296 miles.

#### STABLE YARDS.

The periodical removal and final disposal of stable manure at least once a week, together with the construction of properly covered horse manure bins, is a matter that seems to be beneath the notice of most local authorities.

It is no unusual thing for inspectors to find stable yards, as well as those of private dwellings where horses are kept, covered several inches in depth with dried horse litter. In towns, especially where householders depend entirely on roof water for domestic purposes, it is essential that horse manure should be collected and removed regularly to prevent the pulverised droppings

from being blown on to the roofs of houses and into eaves gutters, from where it becomes washed into the rainwater storage tanks with the first shower of rain, and is a most undesirable means of pollution.

The public require to be educated to the fact that accumulations of manure in yards are prolific breeding-grounds for the flies which, in many of the Western parts of the State make life almost unbearable. If people were not so apathetic and indifferent about health matters generally until it affects them personally, they would soon become alive to the fact that by keeping their refuse, including horse litter, in properly covered receptacles, and the weekly removal of the contents of all such breeding-grounds, that the myriads of flies that plague their lives in the summer-time would be often mitigated.

In order that the public should be better enlightened in the observance of modern rules relating to good sanitary surroundings, the Department aims to make the inspectors' itineraries of as educative a character as possible by the wide distribution of pamphlets and literature on the causation and prevention of infectious disease, &c. It has also been customary to leave the admirable large departmental posters at all State schools graphically setting forth the life-history of the house fly, so that the teachers may be enabled to explain to their scholars the dangerous character that the fly is now recognised to be. This has been impressed upon the Department of Public Instruction, who now provide for the fly-proofing of schools in districts where the fly is prevalent. Local Authorities have ample powers conferred upon them to deal in an effective manner for the periodical removal of manure and other refuse matters under the provisions of section 68 of "*The Health Acts, 1900-1911*," the mandatory powers of which they appear to lose sight of.

#### SANITARY DEPÔTS.

A number of towns conduct the operations at the depôts in a manner that leaves nothing to be desired, but a great deal of ignorance, on the other hand, exists among sanitary contractors and councils' inspectors regarding proper and systematic workings and trenching. It would appear that the principles and objects of shallow burial are not understood. The thorough cleaning and disinfection of pans is oftentimes neglected.

This is usually found where the sanitary service is carried out in the night time. With the daylight service and proper appliances no nuisance is created and more strict supervision can be exercised over the work. Advice and instruction are afforded by the visiting inspectors in all cases where the methods of disposal are not in accordance with accepted principles. Contractors frequently have changes on their staff, and constant vigilance on the part of the Department has consequently to be exercised. Matters are more satisfactory at depôts whereat destructors are erected for the incineration of the night-soil. In numerous instances local authorities place the onus of the removal of household garbage and trade refuse on the occupiers of premises, the shire councils considering they have fulfilled their duty by simply having some convenient reserve gazetted as a rubbish depôt; consequently, these garbage tips are frequently most unsightly and offensive spots. Very few



of the councils ever give a thought to the systematic and orderly working of these tips or attending to the burning off of combustible matter and proper covering in of the deposits.

Carters employed to remove rubbish simply tip their loads in a haphazard fashion, with the result that the entrance to an enclosed dépôt soon becomes blocked, and it is no unusual thing to find loads of garbage dumped in the scrub or on the roadside leading to the dépôt.

The scavenging crusades frequently insisted on and supervised by officers of the Department usually bring recalcitrant councils to a sense of their responsibilities.

#### CLOSET CONSTRUCTION.

The Sanitary Conveniences and Nightsoil Disposal Regulations were prepared at considerable trouble for the purpose of assisting Local Authorities, among other things, to bring about a uniform system of closet construction and the systematic disposal of nightsoil. The want of uniformity will continue until such time as these Regulations are gazetted to the principle centres of population and their provisions enforced. The accompanying photographs show examples of what the inspectors frequently meet with on their various tours of inspection. The aforesaid Regulation, so far as constructional details are concerned, with slight modifications, should also be enforced at centres where the number of inhabitants do not warrant the initiation of a sanitary service. The extra initial cost in the erection of a new closet or the altering of existing ones would only amount to a nominal sum of money to bring them into uniformity with the Regulations, but by no stretch of the imagination could the Regulations be made to apply to the closets, shown in the photographs, which are found in use where a duplicate pan service is in operation. Taking into consideration the well-established connection between the spread of enteric fever and the common fly, can it be wondered at that this and similar sicknesses are prevalent in districts where such conveniences are tolerated by Local Authorities until a State health inspector comes along and the Department orders their demolition. Since Local Authorities are compelled to pay for the treatment of infectious diseases cases occurring within their respective areas at district hospitals, we may reasonably expect to find such erections become a thing of the past.

#### INSECT TRANSMITTERS OF ENTERIC AND ASSOCIATED AILMENTS.

With regard to typhoid fever being carried by means of transmitters, the fly has been one of the recognised causes, but during my various tours of inspection I have carefully observed the cockroach, and am convinced that this insect is also a carrier of disease. In Western towns, where cesspits abound, and also in townships where the dry earth system of conservancy is in vogue, I have noticed myriads of cockroaches at night, both in the cesspits and closet pans, feeding on the contents. Where householders use deodorant freely cockroaches are not nearly as numerous, owing to the faeces being covered. The cockroaches referred to in various stages of development are active on the wing, and the same species I have found in pantries and kitchens of hotels and other premises. The fly

can be excluded to a reasonable extent by fly-proof closet construction, but the cockroach in this connection would be more difficult to deal with, as it is nocturnal in its habits and will crawl in through crevices in the night-time when flies are quiescent, and also where the fly would probably not find an entrance in daylight.

In reviewing the year of active operations conducted in various parts of the State much useful work of a permanent value has been accomplished by the visiting inspectors, and, as has been the experience of the past, further good results in the numerous towns and villages embraced within the various itineraries may reasonably be expected.

By-laws have been revised and brought up to date at headquarters for the following Local Authorities:—

Allora Shire Council  
Broadsound Shire Council  
Chinchilla Shire Council  
Eidsvold Shire Council  
Kargoolnah Shire Council  
Newtown Town Council  
Tambourine Shire Council  
Taroom Shire Council  
Tiaro Shire Council  
Winton Shire Council.

Schedules of sanitary contracts have also been revised and corrected for the following Local Authorities:—

Barclay Tableland Shire Council  
Cordalba Shire Council  
Chillagoe Shire Council  
Degilbo Shire Council  
Etheridge Shire Council  
Goolnan Shire Council  
Isis Shire Council  
Ingham Shire Council  
Kedron Shire Council  
Peak Downs Shire Council  
Stanthorpe Shire Council  
Tara Shire Council  
Tiaro Shire Council  
Toombul Shire Council.

#### CONSERVANCY SYSTEMS.

By direction of the Commissioner of Public Health, under the powers vested in him by section 62 of "*The Health Acts, 1900-1911*," sanitary services on the airtight duplicate pan principle have been installed within the following areas, and others are pending:—

Augathella	..	..	Murweh Shire
Chinchilla	..	..	Chinchilla Shire
Degilbo, Biggenden	..	..	Degilbo Shire
Morven	..	..	Murweh Shire
Nanango	..	..	Nanango Shire
Stanthorpe	..	..	Stanthorpe Shire
Taroom	..	..	Taroom Shire
Gatton, Grantham, and Helidon	..	..	Tarampa Shire
Warwick	..	..	Town Council
Yarraman	..	..	Rosalie Shire Council

Disinfecting outfits have been selected and forwarded to the undermentioned Local Authorities:—

Chillagoe Shire Council  
Clifton Shire Council  
Goondiwindi Shire Council  
Howard Shire Council  
Hinchinbrook Shire Council  
Ingham Shire Council  
Johnstone Shire Council  
Jondaryan Shire Council  
Kilcoy Shire Council  
Milmerran Shire Council  
Paroo Shire Council  
Woothakata Shire Council  
Walsh Shire Council.





Types of earth-closets met with by State Health Inspectors while on tour, which afford unimpeded ingress and egress to the typhoid-carrying fly.







## VISITS OUTSIDE METROPOLITAN AREA BY SANITARY INSPECTING STAFF.

Date—1915-1916.	Place.	Purpose of Visit.	Inspector.
18 February ..	Ayr .. ..	General inspection .. ..	C. Cato
25 October ..	Allora .. ..	General inspection .. ..	S. Dudley
11 April ..	Aramac .. ..	General inspection .. ..	J. Wiseman
1 April ..	Atherton .. ..	General inspection .. ..	R. Wright
28 April ..	Augathella .. ..	Sanitary inspection .. ..	J. Wiseman
14 April ..	Almaden .. ..	Cursory reinspection .. ..	R. Wright
4 April ..	Alpha .. ..	Cursory reinspection .. ..	J. Wiseman
8 April ..	Biboohra .. ..	General sanitary inspection .. ..	R. Wright
14-17 February ..	Bowen .. ..	General sanitary inspection .. ..	C. Cato
20 April ..	Blackall .. ..	Sanitary survey .. ..	J. Wiseman
12 January ..	Brandon .. ..	Sanitary survey .. ..	C. Cato
6-10 April ..	Barcaldine .. ..	Sanitary survey .. ..	J. Wiseman
25 September ..	Bajool .. ..	Sanitary survey .. ..	J. Wiseman
28 March ..	Blair Athol .. ..	Sanitary survey .. ..	J. Wiseman
11-12 November ..	Brassall .. ..	Inspecting proposed drainage area ..	H. Burton
18 January ..	Beaudesert .. ..	Inspecting piggeries and slaughter-houses	H. Burton
9 March ..	Biggenden .. ..	Sanitary survey .. ..	H. Burton
1-3 April ..	Bogantungan .. ..	Sanitary survey .. ..	J. Wiseman
21-22 April ..	Burleigh Heads .. ..	Selecting sanitary depôt .. ..	W. McNeil
23-27 February ..	Bundaberg .. ..	Sanitary survey .. ..	W. McNeil
12 January ..	Brandon .. ..	Sanitary survey .. ..	C. Cato
2-3 May ..	Biggenden .. ..	Inspecting sanitary depôt .. ..	W. McNeil
14-15 June ..	Biggenden .. ..	Selecting sanitary depôt .. ..	W. McNeil
8 March ..	Cordalba .. ..	Sanitary survey .. ..	W. McNeil
22 March ..	Cooran .. ..	Sanitary survey .. ..	W. McNeil
23 March ..	Cooroy .. ..	Sanitary survey .. ..	W. McNeil
24 March ..	Capella .. ..	Sanitary survey .. ..	J. Wiseman
25 March ..	Caboolture .. ..	Sanitary survey .. ..	W. McNeil
25-28 March ..	Clermont .. ..	Sanitary survey .. ..	J. Wiseman
16 July ..	Cleveland .. ..	General reinspection .. ..	S. Dudley
6 October ..	Cambooya .. ..	General reinspection .. ..	S. Dudley
8-9 October ..	Clifton .. ..	General sanitary inspection .. ..	S. Dudley
3-4 November ..	Crow's Nest .. ..	General sanitary inspection .. ..	S. Dudley
15-16 December ..	Coolangatta .. ..	Selecting sanitary site depôt .. ..	S. Dudley
25 October to 4 November	Caboolture .. ..	Suppressing diphtheria outbreak ..	H. Burton
6-8 October ..	Corona Sheep Station	Investigating cause of sickness among shearers	J. Wiseman
29 April-4 May	Charleville .. ..	General inspection .. ..	J. Wiseman
16-18 November ..	Chinchilla .. ..	Infectious disease enquiry .. ..	S. Dudley
20-22 May ..	Chinchilla .. ..	Sanitary survey .. ..	J. Wiseman
30 May-4 June	Cammoewal .. ..	Investigating outbreak of beri-beri ..	C. Cato
2-10 March ..	Charters Towers .. ..	General inspection .. ..	C. Cato
27 May ..	Cardwell .. ..	General inspection .. ..	R. Wright
6 April ..	Chillagoe .. ..	General reinspection .. ..	R. Wright
30 May ..	Cooktown .. ..	Sanitary survey .. ..	R. Wright
5 June ..	Cairns .. ..	House to house inspection .. ..	R. Wright
6-7 March ..	Childers .. ..	Sanitary survey .. ..	W. McNeil
21 March ..	Duaringa .. ..	General inspection .. ..	J. Wiseman
15 March ..	Degilbo .. ..	Sanitary survey .. ..	W. McNeil
25-30 May ..	Dalby .. ..	Sanitary survey .. ..	J. Wiseman
26-29 October ..	Eulimbah .. ..	Suppressing diphtheria outbreak ..	H. Burton
14 April ..	Einasleigh .. ..	Sanitary survey .. ..	R. Wright
27-29 September	Emu Park .. ..	General reinspection .. ..	J. Wiseman
22-24 March ..	Emerald .. ..	General inspection .. ..	J. Wiseman
1 February ..	Eton .. ..	General inspection .. ..	C. Cato
27-28 September	Forest Hill .. ..	General inspection .. ..	S. Dudley
28 January ..	Finch Hatton .. ..	Sanitary survey .. ..	C. Cato
29 November ..	Fernvale .. ..	Selecting sanitary depôt .. ..	S. Dudley
1-2 March ..	Gin Gin .. ..	Sanitary survey .. ..	W. McNeil
14 March ..	Gayndah .. ..	General inspection .. ..	W. McNeil
17-21 March ..	Gympie .. ..	General inspection .. ..	W. McNeil
10 June ..	Goodna Asylum .. ..	Supervising rat destruction .. ..	S. Dudley
13-17 June ..	Gladstone .. ..	Diphtheria inquiry .. ..	J. Wiseman
1-2 October ..	Gatton .. ..	General inspection .. ..	S. Dudley
7 October ..	Greenmount .. ..	General sanitary inspection .. ..	S. Dudley
15-17 October ..	Goondiwindi .. ..	General reinspection .. ..	S. Dudley
25 October ..	Goomburra .. ..	General sanitary inspection .. ..	S. Dudley
11-12 November ..	Grantham .. ..	Selecting sanitary depôt .. ..	S. Dudley
5 October ..	Gracemere .. ..	General sanitary inspection .. ..	J. Wiseman
22 February ..	Howard .. ..	General reinspection .. ..	W. McNeil
21 October ..	Hendon .. ..	General sanitary inspection .. ..	S. Dudley
10-11 November ..	Helidon .. ..	General sanitary inspection .. ..	S. Dudley
21 January ..	Hughenden .. ..	General sanitary inspection .. ..	C. Cato
17 Mar.-8 April	Hughenden .. ..	Supervising and cleansing town ..	C. Cato
29 May ..	Halifax .. ..	General reinspection .. ..	R. Wright
14 October ..	Inglewood .. ..	General sanitary inspection .. ..	S. Dudley
21 May ..	Ingham .. ..	General reinspection .. ..	R. Wright
15 April ..	Irvinebank .. ..	General reinspection .. ..	R. Wright
30 May ..	Innisfail .. ..	General reinspection .. ..	R. Wright
5 April ..	Jericho .. ..	Sanitary inspection .. ..	J. Wiseman
19 May ..	Jundah .. ..	General sanitary inspection .. ..	J. Wiseman
23 May ..	Jandowae .. ..	General sanitary inspection .. ..	J. Wiseman
7 February ..	Kilkivan .. ..	Typhoid inquiry and sanitary survey	W. McNeil
11-14 February ..	Kingaroy .. ..	Sanitary survey .. ..	W. McNeil



## VISITS OUTSIDE METROPOLITAN AREA BY SANITARY INSPECTING STAFF—continued.

Date—1915-1916.	Place.	Purpose of Visit.	Inspector.
28 March ..	Kilcoy .. ..	Sanitary survey .. ..	W. McNeil
19 October ..	Killarney .. ..	General reinspection .. ..	S. Dudley
4 October ..	Kabra .. ..	General sanitary inspection .. ..	W. Wiseman
25 January ..	Kureen .. ..	General sanitary inspection .. ..	R. Wright
27-28 September	Laidley .. ..	General inspection .. ..	S. Dudley
24 March ..	Landsborough .. ..	Sanitary survey .. ..	W. McNeil
12 April to	Longreach .. ..	Sanitary survey .. ..	J. Wiseman
8-12 October			
27 May ..	Lucinda Point .. ..	General sanitary inspection .. ..	R. Wright
30 October to	Milmerran .. ..	General sanitary inspection .. ..	S. Dudley
2 November			
13 November..	Marburg .. ..	General sanitary inspection .. ..	S. Dudley
7 February ..	Murgon .. ..	General sanitary inspection .. ..	W. McNeil
17-21 February ..	Maryborough .. ..	General reinspection .. ..	W. McNeil
29 February ..	Miriam Vale .. ..	Sanitary survey .. ..	W. McNeil
10-12 March ..	Mundubbera .. ..	Sanitary survey .. ..	W. McNeil
7 July ..	Meteor Park .. ..	Inquiry typhoid outbreak .. ..	W. Wiseman
22 September	Marmor .. ..	General reinspection .. ..	W. Wiseman
25 January to	Mackay .. ..	General reinspection .. ..	C. Cato
9 February			
26 January ..	Mirani .. ..	General sanitary inspection .. ..	C. Cato
16-18 August ..	Maryborough .. ..	Inquiry proposed drainage scheme .. ..	Chief Inspector
7 June ..	Mossman .. ..	General reinspection .. ..	R. Wright
6-9 May ..	Mitchell .. ..	Sanitary survey .. ..	J. Wiseman
25 January ..	Malanda .. ..	General sanitary inspection .. ..	R. Wright
4-6 May ..	Morven .. ..	General sanitary inspection .. ..	J. Wiseman
29 May ..	Mourilyan .. ..	General sanitary inspection .. ..	R. Wright
15-17 May ..	Miles .. ..	General sanitary inspection .. ..	J. Wiseman
10 April ..	Mount Molloy .. ..	General sanitary inspection .. ..	R. Wright
29 September to	Mount Morgan .. ..	General reinspection .. ..	W. Wiseman
4 October			
4 April ..	Mungana .. ..		
23 September	Mount Larcom .. ..	General reinspection .. ..	W. Wiseman
3 March ..	Mount Perry .. ..	Reinspection and sanitary survey .. ..	W. McNeil
15-16 February ..	Nanango .. ..	Sanitary survey .. ..	W. McNeil
29 January ..	Netherdale .. ..	Sanitary survey .. ..	C. Cato
24 March ..	Nambour .. ..	Sanitary survey .. ..	W. McNeil
6-8 November..	Oakey .. ..	General reinspection .. ..	S. Dudley
6 February ..	Peel Island .. ..	Conducting patient to Lazaret .. ..	S. Dudley
27-30 October ..	Pittsworth .. ..	General sanitary inspection .. ..	S. Dudley
22 March ..	Pomona .. ..	Sanitary survey .. ..	W. McNeil
25 January ..	Pearamon .. ..	General sanitary inspection .. ..	R. Wright
6 June ..	Port Douglas .. ..	General reinspection .. ..	R. Wright
10-16 March ..	Queenton .. ..	General reinspection .. ..	C. Caro
25 September	Raglan .. ..	General sanitary inspection .. ..	J. Wiseman
4 August ..	Red Lynch .. ..	General sanitary inspection .. ..	R. Wright
28 February ..	Rosedale .. ..	General inspection .. ..	W. McNeil
10 May ..	Roma .. ..	Sanitary survey .. ..	J. Wiseman
20-22 March ..	Southport .. ..	Sanitary survey .. ..	S. Dudley
30 March to	Springsure .. ..	Sanitary survey .. ..	J. Wiseman
1 April			
4 March ..	South Kolan .. ..	Inspection, police station and hotels.. ..	W. McNeil
19 April ..	Stannary Hills .. ..	General reinspection .. ..	R. Wright
8 January ..	Sarina .. ..	General reinspection .. ..	C. Cato
9 April ..	Terrace Creek .. ..	Piggery inspection .. ..	H. Burton
10 April ..	Torrens Creek .. ..	General reinspection .. ..	C. Cato
15 November..	Torrens Creek .. ..	Typhoid inquiry .. ..	C. Cato
3-5 October ..	Toowoomba .. ..	General reinspection .. ..	S. Dudley
24 April ..	Tambo .. ..	General inspection .. ..	J. Wiseman
9 November..	Toowoomba .. ..	Inquiry stream pollution .. ..	S. Dudley
16 March ..	Tiaro .. ..	Sanitary survey .. ..	W. McNeil
13 June ..	Tiaro .. ..	Selecting sanitary depôt .. ..	W. McNeil
13 June ..	Tolga .. ..	General reinspection .. ..	R. Wright
23-25 May ..	Tara .. ..	Sanitary inspection .. ..	J. Wiseman
18 May ..	Taroom .. ..	General inspection .. ..	J. Wiseman
3 June ..	Toowoomba .. ..	General inspection .. ..	J. Wiseman
10-13 October ..	Warwick .. ..	General reinspection .. ..	S. Dudley
25 January ..	Wakerston .. ..	General inspection .. ..	C. Cato
9 February ..	Wondai .. ..	Sanitary survey .. ..	W. McNeil
10 February ..	Wooroolin .. ..	Sanitary survey .. ..	W. McNeil
20 March ..	Westwood .. ..	Sanitary survey .. ..	J. Wiseman
26-27 March ..	Woodford .. ..	Sanitary survey .. ..	W. McNeil
9 April ..	Wolfram .. ..	General reinspection .. ..	R. Wright
20 October ..	Yangan .. ..	General sanitary inspection .. ..	S. Dudley
20 July ..	Yeppon .. ..	Sanitary survey .. ..	W. Wiseman
25 January ..	Yungaburra .. ..	General inspection .. ..	R. Wright
13-15 May ..	Yeulba .. ..	General inspection .. ..	J. Wiseman



The following brief précis affords some indication of the sanitary circumstances of a number of the townships inspected in the several parts of the State of Queensland, and which have been specially reported on:—

#### SOUTH-WESTERN DISTRICTS.

*Augathella*.—A general inspection of this township was made, and the same insanitary conditions were met with as on the previous inspection. The pit system was in vogue, numbers of which were found to be very offensive. Council were notified to have all nuisances removed. A sanitary service on the duplicate pan system has since been initiated.

*Biggenden*.—Recommendations were made to the Shire Council, after an inspection by an officer of the Department, in connection with the nightsoil and garbage services. The Council are now acting on these recommendations. A dépôt has been decided upon, and the improvements are well in hand.

*Bundaberg*.—Matters pertaining to public health are still receiving attention by the Council, and the general sanitary conditions of the municipality are very good. Improvements are still being carried out with regard to drainage, but much remains to be done before satisfaction is attained. The good reputation of the nightsoil services is still being maintained, the work being carried out in a most efficient and workmanlike manner.

*Clifton*.—This township was found to be in a satisfactory condition. Improvements were observed at the sanitary dépôt. New sheds and proper pan-washing plant have been provided. The sanitary premises and plant are kept in a satisfactory condition.

*Charleville*.—An inspection of this town revealed that the work at the sanitary dépôt called for much improvement. There is no municipality-controlled garbage removal service, and, at the dépôt, rubbish, &c., is tipped all over the area. Many stable-yards were found in a disgraceful condition. All matters necessitating action were duly submitted to the Council for attention.

*Chinchilla*.—This township was reinspected recently, and, as a result, the Council were called upon to fence in the sanitary dépôt. The carrying out of the work at the dépôt was correct in detail. Since the last cleaning up of the garbage dépôt supervision has not been exercised, and consequently a return to the old unsatisfactory condition is the result. Earth closets have the usual constructional defects.

*Cambooya and Greenmount*.—This is a comparatively new shire. At the time of inspection none of the usual municipal franchises had been installed. The Council's intention is to install conservancy systems in both townships. I might state that the clerk has had previous experience in the Shire of Clifton in the supervision of these matters, and it may be presumed that this work will be satisfactorily attended to.

*Caboolture*.—On inspection, this township was found free from accumulations of rubbish. The nightsoil service is well worked. Earth closets have the usual defects. Council's attention was directed to these and minor matters requiring attention.

*Cooran, Pomona, and Cooroy*.—These small townships, situated on the North Coast Line, were inspected, and matters requiring attention were submitted to the Council for action.

*Cordalba*.—The sanitary service was found to be very badly worked, the state of the dépôt being very offensive. A new contract has since been let for this township, and it is hoped that a marked improvement will take place.

*Childers*.—A sanitary survey of this fine township was undertaken, and showed that matters concerning the sanitation of the town were relegated to secondary consideration. The centre of the town was found in a dirty condition, many large accumulations of rubbish being observed. The removal of town rubbish is not satisfactorily carried out, and no system or method is displayed at the tip. Many earth closets are out of repair, and contain the usual defects. The methods at sanitary dépôt are careless and inefficient. Recommendations were made to council to have an all-round improvement effected concerning the sanitation of the town.

*Degilbo*.—The sanitary conditions of this small township are fair. The sanitary contract is worked in conjunction with Biggenden, and will be much improved under the new contract.

*Forest Hill*.—There is a great improvement here since the last visit of inspection. The sanitary system has been reorganised, a daylight service having been installed, with airtight pans. The Sanitary Conveniences and Nightsoil Disposal Regulations have been gazetted for this area, and in consequence all earth closets have been brought up to departmental requirements.

*Goondiwindi*.—Since the last visit of reinspection a nightsoil service has been installed and the work is well conducted. At the dépôt the plant is complete in every detail. Stables, deodorant store, washing-shed with concrete floor, tanks for hot and cold water, for washing purpose, are provided. Everything at the dépôt was found to be clean and in good order. The only defect in the plant for nightsoil collection was billy lids instead of airtight ones. To complete the good work started on these lines, it is most desirable that the council install a weekly garbage removal service with uniform bins.

*Gatton*.—Although this town has a sanitary system, the want of proper plant was observed, but as a result of the inspector's visit and conference with the Council and their officers, improvements are under way. Airtight pans have been ordered, and it is the intention to gradually replace all old equipment and initiate a daylight service. The usual faulty features in closet construction were noticeable. These will continue until the Local Authority draw up proper construction by-laws on the basis of the Sanitary Conveniences and Nightsoil Disposal Regulations. If Local Authorities would take advantage of having these regulations gazetted wholly or in part to meet their requirements, they would save themselves time and trouble in drafting out a new by-law and having it gazetted.

*Gayndah*.—A garbage removal service has not yet been instituted in this town, despite the fact that this Department has repeatedly pointed out the danger of so many accumulations of rubbish in yards and on the banks of the Burnett River. Many other improvements in connection



with the sanitary condition of the place are necessary and were duly submitted to the Council for action.

*Gympie.*—A reinspection of Gympie was made in March of this year. The work at the sanitary depôt was fairly well carried out. The garbage removal service has not yet been inaugurated, although this Department has repeatedly requested the Council to do so. The condition of the town warrants such a service, as many accumulations of rubbish and manure were noticed about the town. Numbers of the earth closets were found to have the usual constructional defects. A further report concerning the sanitation of the town was submitted to the Council and action requested.

*Gin Gin.*—On inspection at this township it was found that matters of sanitary executive were being very badly conducted. For example, at the sanitary depôt nightsoil was being simply dumped on the banks of a gully which discharges into Gin Gin Creek, the contractor being guilty of grave neglect in the proper carrying out of the contract. The rubbish tip was also found in a most offensive and neglected condition. Many earth closets require attention. Council possesses no plant for disinfecting, and are therefore not in a position to combat an outbreak of infectious disease.

*Howard.*—A reinspection of this town revealed a most insanitary and unhealthy state of affairs. There is no nightsoil nor garbage removal services, which is a grave state of affairs in a township of this size and population. The neglect of the Council in this respect has caused householders to be most careless in their manner of disposing of nightsoil and garbage. The inauguration of nightsoil and garbage removal services are urgent necessities. Previous to inspection, Council did not possess any disinfecting plant, but on advice from this Department have since procured the necessary appliances for combating disease. The Council have again been called upon to initiate the necessary franchises appertaining to a properly conducted conservancy system.

*Inglewood.*—The sanitary system inaugurated here in 1912 and previously reported on was found to be carried out satisfactorily. The depôt has now been enclosed by an appropriate fence, suitable washing sheds, and deodorant store erected. The whole plant, including sanitary wagons, was found to be kept in a thorough state of cleanliness.

*Kingaroy.*—A general inspection was made of this town. The nightsoil service is well carried out, but necessary improvements were recommended for more efficient working. The garbage tip was found to be in an insanitary state, there being no removal service; householders tip rubbish at depôt just as they like. Accumulations of rubbish were observed in many yards, and earth closets do not comply with the formal standard requirements of this Department.

*Kilcoy.*—The working of the nightsoil and garbage removal services were found to be far from satisfactory. The Council have now reorganised the services, and up-to-date plant has been procured, which should give satisfaction to all.

*Kilkivan.*—In consequence of an outbreak of typhoid fever, an exhaustive inquiry was made into the circumstances of the outbreak. The township was found to be clean and well kept. The sanitary service is carried out in an efficient manner, but there is no garbage removal service in vogue, and disposal at depôt was not satisfactory. Disinfection is carried out by householders without any instruction in the matter. Such an arrangement is not conducive to the checking of infectious diseases. Council were advised to appoint an officer to carry out disinfections under instruction from visiting local inspector, and also to institute a garbage service.

*Landsborough.*—This township was found in a very clean condition. Council's attention was directed to minor matters requiring attention.

*Mitchell.*—Matters pertaining to the sanitation of this township were found, on inspection, in a satisfactory condition. A few suggestions which would further improve things were submitted to Council. The new conservancy system, which the Council have wisely kept in their own hands, is giving unbounded satisfaction.

*Morven.*—A reinspection was made on 7th May, 1916, when it was found that the pit system was still in vogue, and in about its worst form. Some of the privies had overfull pits. The side of the dam adjoining the town reserve was found to be simply a huge scattered rubbish dump for over a mile long. The unhealthy condition of affairs necessitated the Commissioner notifying the Council that unless steps were taken to clean up the township, the Department would be forced to take action under section 174A of Health Acts. Immediate action was promised by the Council, who have now taken steps to comply with the requirements of the Department, together with the initiation of a sanitary service. Typhoid fever having practically been endemic in this township, the proposed sanitary reforms should prove beneficial.

*Maryborough.*—This municipality possesses a good sanitary service which, when inspected, was found to be excellently worked. The garbage removal service requires reorganising. The business portion of the town was unclean, many accumulations of rubbish and manure were observed about the yards. The drainage of this town is very bad; a system of drainage is a pressing need. Rats and mosquitoes are very prevalent, and measures are required to deal with these disease carriers.

*Murgon.*—On a sanitary survey of this township being made it was found that the nightsoil service was fairly well carried out. Improvements were suggested to the Council for the more efficient working of the service. There is no garbage removal system in vogue, hence many accumulations of rubbish and garbage were observed in yards and about the locality. The garbage tip was found in a most unsatisfactory condition, no system or method being adopted in order to carry out this work in a proper manner. The usual defects were observed in earth closets. Disinfection is not carried out by Council, who possess no plant for this purpose, and are therefore not in a position to combat an outbreak of infectious disease.



*Mundubbera.*—A number of improvements are required in this small township, and suggestions were passed on to the Council for their consideration. Sanitary conveniences especially require attention. A site for a sanitary depôt was inspected and approved of.

*Miriam Vale.*—This township is comprised of about twenty-five premises, and an inspection resulted in suggestions being made to improve the general sanitary circumstances. Many earth closets were found out of repair, and various kinds of receptacles used for reception of excreta. Many large accumulations of rubbish were observed, and it was noticed that after advice and instruction had been given to householders rubbish was burned and buried without any trouble, proving that if the people are only kept up to the mark they are only too willing to keep their premises in a clean condition.

*Mount Perry.*—Owing to the closing down of the copper mines, Mount Perry is not at present in a flourishing position. The general conditions were found to be satisfactory, but many earth closets require repairing and reconstructing. The garbage tip was not all that could be desired. Instruction and recommendations were made so as to effect improvements.

*Nambour.*—The work of nightsoil and garbage disposal is being well carried out at the depôt. The garbage removal from the township requires to be placed on a more satisfactory footing. Many large accumulations of rubbish were observed at rear of business premises. Earth closets were found to have the usual constructional defects. Suggestions were made to the Council for improvements in these matters.

*Nanango.*—A reinspection of this town was made, and it was found that a great many improvements had been carried out. Earth closets had been well brought up to the standard. The township was in a good, clean, and sanitary condition. The nightsoil and garbage services are well carried out, but the condition of the rubbish tip is not all that could be desired. However, as the result of departmental action, improvements may be expected on the inspector's return visit of inspection.

*Oakey.*—The question of drainage disposal in inland towns is becoming acute, especially so where butter and cheese factories have been established, and this also applies to the large volumes of waste water produced at hotels, &c. This progressive Council is the first within the State to procure a Merryweather Cesspool Vacuum Ejector, and are to be commended on their action, which it is expected will be productive of improved sanitary conditions. It may reasonably be expected that on the next visit of inspection the spade-formed street water channels that were converted into veritable quagmires by the discharge of hotel water will no longer offend the sense of sight or smell.

*Roma.*—The sanitary depôt in this town called for vast improvement, the work being carried out in a most unsatisfactory manner. The depôt was found to be overgrown with prickly-pear, low-lying, and unsuitable. A new site has been selected which will no doubt vastly improvematters. The disposal of rubbish and household garbage is splendidly carried out.

The question of a drainage system for the whole of the town is engaging the attention of the Local Authority.

*Rosedale.*—This small township was inspected, and recommendations made to the Shire Council for improvements with regard to the abolition of cesspits and kerosene tins used as nightsoil receptacles, and suggestions made for the better disposal of garbage and rubbish.

*Toowoomba.*—There are improvements here since the last inspection. The daylight sanitary service has been in vogue for some considerable time, and the contractors and their manager are to be commended on the manner in which the work is carried out. They have also made extensive improvements at the incinerator works. On inspection at various times during the day the waggons were always found to be clean. Regarding the garbage removal, the Council could improve the service by providing uniform standard-sized tins.

*Tiaro.*—The conditions existing in this township, which comprised about fifty premises when an officer from this Department paid a visit of inspection, were found to be far below the elementary principles of sanitation. A great many of the earth closets were found dilapidated and offensive. Many accumulations of rubbish were observed in yards and about the township. There is no sanitary or garbage services. On the recommendations of the Department, the Council are instituting a nightsoil service and are having the Sanitary Conveniences and Nightsoil Regulations extended to the area, which will materially assist them in bringing the conditions up to the required standard.

*Warwick.*—Since the last inspection a marked improvement has taken place in sanitary matters generally. The Council have taken over the collection and disposal of nightsoil and garbage, and on reinspection of the depôt, a complete transformation was observed. The improvements consisted of a pan-washing shed with cement floor and an efficient washing plant. An elevated storage tank ensuring a constant supply of water under pressure, stables, and deodorant store have also been erected. A bore 360 ft. in depth has been sunk, from which water is pumped by means of an oil engine into supply tank. The garbage removal service is now carried out weekly. The Council have procured suitable carts, but the introduction of uniform-sized metal garbage bins would further improve this service. The former practice of discharging hotel waste water into the street water channels has been discontinued, and the sawdust urinal pans recommended by this Department have given entire satisfaction, the contents of which are disposed of at the sanitary depôt.

*Wondai.*—The general sanitary circumstances of this township were found on inspection to be good. The nightsoil service is well carried out. The garbage tip, which is not worked in a systematic or methodical manner, was found to be offensive. There is no garbage removal service; householders cart their own rubbish to the tip and deposit it how and where they like. Earth closets were found to have the usual constructional defects. Recommendations were made to the Council to have these matters remedied.



*Wooroolin.*—This is a small township, and after inspection recommendations were made for the better carrying out of the sanitary and garbage removal services, which were not efficiently worked. The earth closets contained the usual defects.

*Woodford.*—The sanitation of Woodford was found on inspection to be fairly satisfactory. The disposal of nightsoil is carried out in a satisfactory manner. A number of accumulations of rubbish were noticed. Report was submitted to the Council and action requested in matters requiring attention.

#### CENTRAL DISTRICT.

Inspector Wiseman, in charge of this district, spent the greater part of the fiscal year attending to matters of sanitary executive in the City of Rockhampton and adjacent townships, and, like the other officers in Northern centres, had to devote a considerable portion of his time to food inspection. For departmental reasons this officer was detailed to make an extended tour of inspection in the Central West and South-western portions of the State. The itinerary included numbers of settlements that had not previously been inspected by a State inspector. Local Authorities and their officers were afforded advice and instruction in every instance where they were met with. The following is a summary of the sanitary circumstances of a number of the places visited, all of which have already been the subject of special reports to headquarters:—

*Aramac.*—In this township, a sanitary survey of which was made on the 3rd May, 1916, it was found that the old pit system was still in vogue. The old rubbish dump is being done away with, it being too near the town. This dump required a good cleaning up. Originally, a good tip was formed, but from lack of proper supervision was allowed to get into a bad state. A new site has been selected for both nightsoil and garbage. A Government loan has been applied for for the establishing of this service on a more satisfactory footing.

*Blair Athol.*—The work of nightsoil burial is well carried out. Many sanitary conveniences were found in a dilapidated condition. There is no garbage removal service, and consequently the yards of premises are badly scavenged. It is the intention of the Council to institute a garbage removal service with the new sanitary contract. Council have advised the Department that action is being taken to remedy all nuisances.

*Bogantungan.*—It was found on inspection that this township required a good cleaning up, and that a number of sanitary conveniences required attention. The Council were advised concerning the various nuisances, and they have since reported to this Department that improvements have taken place.

*Blackall.*—A visit to this township was made, with the result that recommendations were submitted to the Council for improvements to the plant of the sanitary depôt. Earth closets were found in good order. No garbage removal service is in operation, and a number of accumulations exist, to which the Council's attention has been directed. Drainage matters also received attention.

*Barcaldine.*—The sanitary conditions prevailing in this town were found on inspection to be a menace to the welfare of the community. The methods employed at the nightsoil and garbage depôts showed grave carelessness and bad system. Drainage matters were found to be neglected, and sanitary conveniences required reconstructing. The Council were notified of these insanitary conditions, and advised that, if matters were not improved, this Department would take action under section 174A of "*The Health Acts, 1900-1911.*"

*Bajool.*—An inspection of this small township, which consists of about twenty-five premises, was made on the 25th September, 1915. The nightsoil is collected by a selector, who disposes of same on his own land for manurial purposes. The work is well and cleanly carried out. There is no garbage removal service and no definite tip, consequently accumulations of rubbish exist in many yards and about the town, to which the Local Authority's attention has been directed.

*Corona Sheep Station.*—As a result of reports that sickness was prevalent at this station, an inspector was despatched to investigate the cause. Many insanitary conditions were observed. Samples of drinking water were submitted to the Government Analyst, who reported that the water was contaminated with organic matter of vegetable origin, and was not suitable for drinking. A full report was submitted to the Home Secretary.

*Clermont.*—A reinspection was carried out in order to ascertain if the requirements of this Department had been complied with. The inspector's report showed that many of the nuisances had been attended to, but the rubbish tip was still unfenced and in an unsatisfactory condition. The Council have since notified the Department that the garbage depôt would be enclosed by an appropriate fence and systematically worked. Directions were given to the Council to take measures to prevent the pollution of the town lagoon, the water from which is used for domestic purposes, and was being contaminated by drainage.

*Emerald.*—Matters pertaining to sanitation of this township were found to be greatly improved since the last inspections. The district inspectors report that the Council's inspector has a good grip of the situation, with beneficial results. The Council were advised of a few matters which required attention.

*Emu Park.*—An inspection of this seaside resort in October, 1915, revealed the sanitary conditions to be most unsatisfactory. There being no properly conducted sanitary or garbage removal services, consequently the state of the township was not all that could be desired. The Council has been called upon to effect improvements, and the extension of the Sanitary Conveniences and Nightsoil Regulations will materially assist the Local Authority in the carrying out of the necessary requirements.

*Gracemere.*—Gracemere is a small township consisting of about thirty-four premises. An inspection was made on the 5th October, 1915. A number of premises were found to have pans, and a number to be using pits, which were allowed to get too full. Insufficient deodorant is used



in the closets. This and other matters requiring attention were reported to the Council and improvements called for.

*Jericho*.—An inspection of this township was made, and inspector reported that the sanitary service was efficiently carried out. Some improvements were recommended to the Council in this matter, and also in regard to the working of the garbage disposal. I might have mentioned that this is a newly constituted shire, and it will take some little time until councillors and their officers become fully conversant with matters appertaining to sanitation.

*Kabra*.—An inspection of this small township, which comprises about fifteen scattered houses, was made on the 4th October, 1915. The condition of the township was found to be fairly satisfactory. The town rubbish dump was on the banks of a fresh-water creek, and the Council were notified to have such a practice discontinued and a new site selected forthwith.

*Longreach*.—A recent sanitary inspection was made of this town, and the necessary information furnished to the Council calling for improvements in the trenching of the nightsoil at sanitary dépôt. Closets were found to comply with requirements except in the case of deodorant, which householders have to supply themselves. The garbage tip was not methodically or systematically worked. The Council have advised that instructions have been given to have the dépôt arranged and worked in the manner suggested by this Department.

*Marmor*.—This township consists of about sixty premises. An inspector paid a visit on the 22nd September, 1915, and reported that the nightsoil service was fairly well carried out, but improvements and systematic working were necessary in order to make it more satisfactory. The garbage tip was reported to be in an untidy and insanitary condition. Yards were found to be badly scavenged, and earth closets in an unsatisfactory condition. The creek from which the township derives its domestic water supplies in dry spells was found to be contaminated by town drainage. The attention of the Council was directed to these matters, and improvements called for.

*Mount Morgan*.—An inspection was made of this township by an officer of the Department in October, 1915, when it was found that no action had been taken on recommendations of the previous year. No steps had been taken to improve sanitary conveniences. The garbage system had not been installed, and the banks of a creek were being used as a depository for rubbish. The Council were advised that immediate action was necessary, as the state of affairs was a menace to the health of the community.

*Mount Larcom*.—This is a small township of about twenty-five premises. An inspection was carried out on the 23rd September, 1915. There is no nightsoil or garbage removal service, and consequently the state of the place was not up to the mark. Owing to the smallness of the township, the inaugurating of a nightsoil removal service has been left in abeyance meantime.

*Raglan*.—The Department's inspector visited this small township on the 25th September, 1915. His report revealed unsatisfactory conditions. No nightsoil or garbage service

being in vogue, nor any arrangements made for the disposal of same, consequently householders display grave carelessness in disposing of the nightsoil and rubbish. The Council were called upon to remedy matters, and take measures to prevent any recurrence of nuisances.

*Springsure*.—The sanitary service is well and efficiently carried out. The garbage removal service is not satisfactory, and the Council were advised to have a removal service inaugurated. It was discovered that many wells were open to pollution, and the Council were notified accordingly.

*Yeppoon*.—At the request of the Livingstone Shire Council, an exhaustive survey was made of Yeppoon, with a view to improving the sanitary conditions of the township. Many unhealthy conditions were reported to the Shire Council for action. The construction of earth closets and the garbage removal service called for improvements, and recommendations were made for the betterment of these two important matters. In order to improve and assist the Council in carrying out the sanitary service, the Sanitary Conveniences and Nightsoil Regulations have been extended to their area. Improvements may therefore be reasonably expected on the next visit of inspection.

#### NORTHERN DISTRICT (TOWNSVILLE).

Inspector Cato, in charge of this district, states that the year has been a strenuous one, and one of steady progress, both sanitary work and food inspections having received attention as opportunity offered.

*Townsville*.—Townsville, being the headquarters of the district, has of necessity received more attention than other important centres within the area, due to departmental exigencies, but visits of inspection have been made to a number of the more populated centres, as will be seen by the following list. The unsatisfactory manner in which the sanitary service at Townsville has been carried on has been the subject-matter of considerable correspondence between the Department and the City Council, and although some improvement has been obtained at the dépôt, the service is still far from satisfactory. Leaky pans still continue to be used by the contractor, with the result that the loaded nightcarts are evil-smelling vehicles.

A small outbreak of typhoid was experienced in Townsville during the months of November, December, January, February, and March, some 153 cases occurring in the city area during that period, 55 per cent. of which were reported during the months of November and December. Anti-typhoid inoculation was resorted to, and 404 persons were publicly treated with vaccine, while a considerable portion of the public were inoculated by private medical practitioners.

*Brandon*.—This small township was inspected in January, and from a sanitary point of view was found to be far from satisfactory. Closet buildings were defectively constructed and badly kept, while accumulations of rubbish on premises and in the main street gave the township an entirely neglected appearance. The Ayr Shire Council, whose apathetic attitude towards their duty under the Health Acts is decidedly marked, were directed to take the necessary steps to improve the sanitation of Brandon.



*Bowen.*—In accordance with instruction, the State inspector paid a visit of inspection to this old town, and it was found that since the visit of Chief Inspector Simpson, in 1914, sanitary matters have been somewhat neglected. The Town Council had experienced trouble with the sanitary contractor, and the garbage disposal tip had again been permitted to get into an insanitary condition. The Council have recently had difficulty in securing the services of a suitable inspector, but I understand an appointment has now been made, so that an improvement in the matters referred to may be expected.

The topographical position of Bowen renders drainage to the sea an easy matter, but, notwithstanding this facility, little has been done to deal with this important work, and during the inspector's visit it was necessary to call on the Council to abate a drainage nuisance in the main street.

*Camooweal.*—This far Western township received a special visit in the month of May, in connection with a reported outbreak of beri beri at that centre. On investigation, however, it was found that only four cases of the sickness actually occurred in Queensland, the majority of the patients having become ill in the Northern Territory and were brought into the Camooweal Hospital for treatment. The opportunity was taken of making an inspection of the township, and, considering its isolated position in the far West and the smallness of its population, its sanitary arrangements may be considered as fairly satisfactory. However, some suggestions have been made to the Barclay Tableland Shire Council for the improvement of the sanitary service.

*Charters Towers.*—The sanitation of this city still receives considerable attention at the hands of the Local Authority, and it was found that only sanitary matters of a minor nature required rectifying. The sanitary service, which is conducted by the Council instead of by the usual contract system, is well organised and performed, this satisfactory state of affairs being in a large measure due to a capable and experienced foreman in charge of the depôt.

*Hughenden.*—A reinspection of Hughenden was made in the month of March, and the long-standing unsatisfactory state of affairs was found to be still in existence. On the attention of the Town Council being again drawn to the dirty state of the town, a gang of men with drays was placed at the inspector's disposal, and a thorough cleaning of the town undertaken. At a meeting of the Local Authority, at which the visiting inspector was invited to be present, it was decided to install a double-pan sanitary service in lieu of the existing obsolete and insanitary dump cart system, and it may now be expected that a vast improvement will eventuate in the construction and cleanliness of privy buildings and in the general appearance of the town.

*Mackay.*—This important sugar centre was revisited during the year under review, and improvements were found to have been effected in its drainage troubles with reference to street watertables. Owing to the site of the town being flat and low-lying, drainage matters are likely to claim much of the Town Council's attention in the future as in the past. The sanitary and garbage services were well conducted, as is gener-

ally found where the work is carried out by Council employees under the supervision of an inspector.

The position of town inspector has been refilled since the previous visit, and the new appointee was given every information with respect to his duties under the Health Act and Regulations.

*Mirani.*—A cursory inspection was made of this township, and minor matters requiring attention at the sanitary depôt were submitted to the Shire Council for the necessary action.

*Queenton.*—The population of this goldmining centre is fast declining, and the removal of houses from its area to more prosperous localities is becoming almost a daily occurrence. Owing to this fact, and the consequent increased individual cost of cleansing operations within the Shire, it is considered that, from an economic standpoint, the time is opportune for a Greater Charters Towers scheme, in which the boundaries of the city would be extended so as to envelop the more populated portion of the Queenton Shire area. The sanitary service is well conducted. The nightsoil incinerator is efficiently worked, and everything about the sanitary premises scrupulously clean, and in consequence innumerable flies that formerly infested the place have almost entirely disappeared.

*Sarina.*—Inspector Cato made his first visit of inspection to this township, which is the centre of the Plane Creek sugar-cane district, during the month of February. Matters in connection with the sanitary service and rubbish removal were found to be somewhat above the average state of affairs which generally exist in small communities. It was necessary, however, to draw the attention of the Shire Council to needed improvements in the conduct of the depôt, and the maintenance of the street watertables in a more sanitary condition for the removal of storm water and other drainage.

*Torrens Creek.*—Since the abolition of the cesspit system and inception of a double-pan sanitary service in March, 1915, much improvement is noticeable in the general sanitation of this township, although some matters in connection with the betterment of the service have been referred to the Dalrymple Shire Council for attention. It was found that the matter of cleansing up the township had not received the attention of the Local Authority, accumulations of rubbish lying about everywhere giving the place a dirty and neglected appearance.

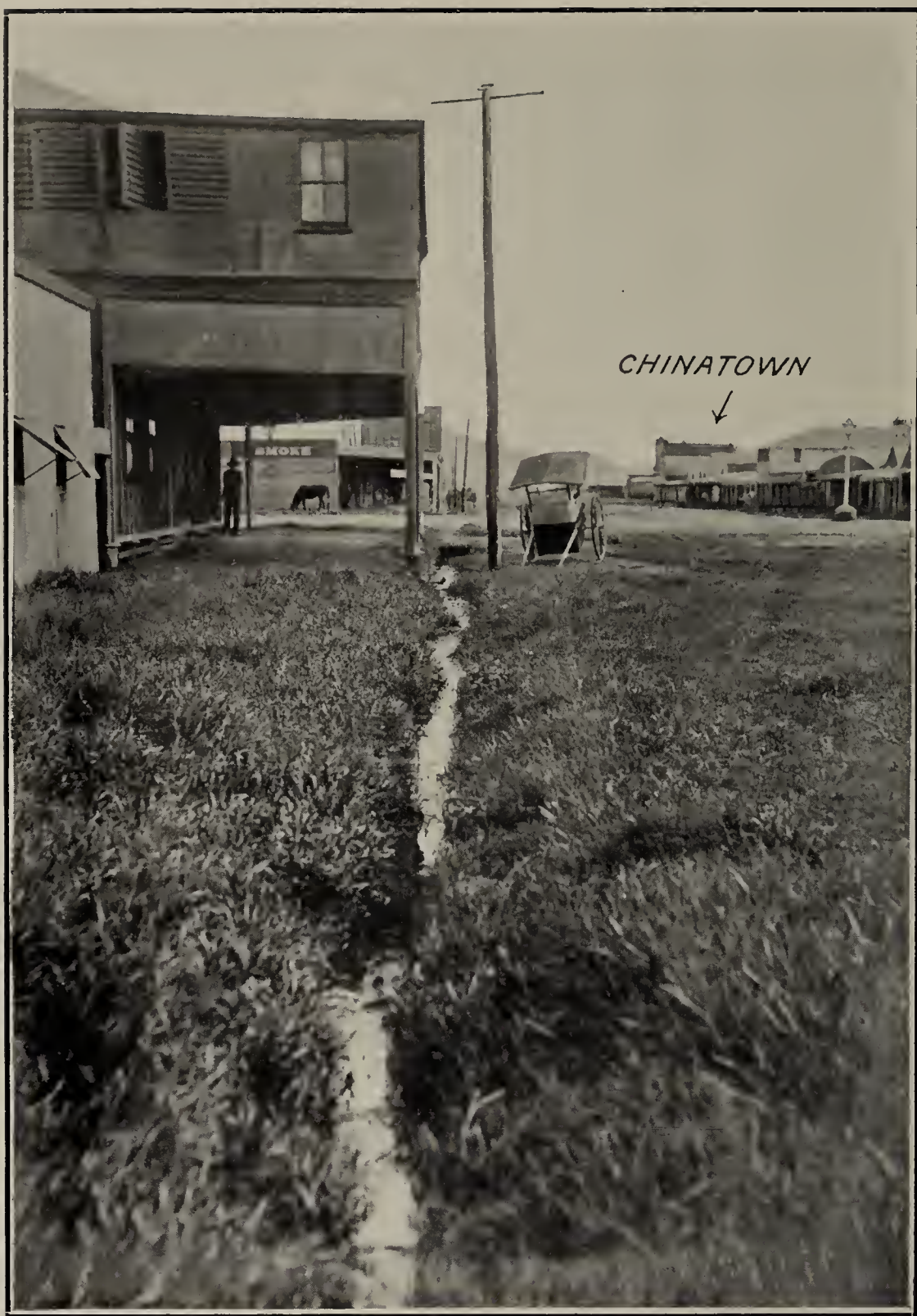
A recurrence of typhoid fever at Torrens Creek was investigated in November, and at the direction of the Commissioner the Local Authority submitted for bacteriological examination blood and faecal specimens obtained from several of the "apparently healthy" residents with a view to ascertaining, if possible, the presence or otherwise of any individual in the community acting as a "carrier."

*Walkerston.*—Much improvement has taken place in the sanitary conditions appertaining to this small township, which state of affairs is due in a large measure to the good work done by the inspector of the Pioneer Shire Council. Improvements required in the work of the sanitary contractor at the depôt were referred to the Council for attention.









Another example of stagnating drainage in a grass-grown street water-channel.



Photograph showing ramshackle premises in Chinese quarters of a Northern city.









A menace to public health. Household drainage stagnating in unformed street water-channel.



Photographs showing low-lying swampy ground being reclaimed by a Local Authority by order of Department of Public Health, in order to facilitate proper drainage.



## NORTHERN DISTRICT (CAIRNS).

Inspector Wright, in charge of the Northern Office, Cairns, from his report submitted, has also had a busy year. The following towns were inspected in respect to general sanitary matters, and recommendations were made to the various Local Authorities where necessary:—

*Atherton.*—A reinspection of this township was made, and a decided improvement was noticed in respect to the sanitary conditions. The sanitary service is now being carried out by the employees of the Council, which has proved the wisdom of the change.

*Almaden.*—A cursory inspection of this town was made, and the conditions at the sanitary depôt were found to be most unsatisfactory, to which the Council's attention has been directed.

*Cardwell.*—The conditions in this township were found to be far from satisfactory. All kinds of receptacles were being used in the earth closets. The Council possessed no disinfecting outfit, but had since procured one with the necessary disinfectants through this Department. The Council has promised to amend the existing insanitary conditions.

*Chillagoe.*—A reinspection of this town was made, and, notwithstanding the repeated inspections that have been made from time to time, and the suggestions offered to the Council by this Department for the improvement in matters appertaining to public health, the sanitary service was still found to be carried out in a most unsatisfactory manner. At the sanitary depôt the plant was found to be dilapidated. The nightsoil was disposed of by being dumped into large pits and left uncovered for a week or more. The Council have now cancelled the existing contract and called for fresh tenders. This has been the subject of a special report, and the Council was requested to keep a stricter supervision over the contractor.

*Cairns.*—A house to house inspection has been made of a portion of this town, and during the past twelve months over one hundred notices concerning breaches of the Health Acts and local by-laws have been served on the Council. Special attention has been paid to Chinatown in respect to the numerous hovels and dilapidated premises, a number have been condemned as unfit for habitation by the Council's Medical Officer of Health, and it is only during the last few weeks that the Council have decided to make a move in the matter, and six cottages have been demolished. It is the Council's intention to have the town thoroughly cleansed, and a number of the hovels now existing in Chinatown demolished, but for some reason opposition has been shown at the Council's table to the measures initiated. It surely cannot be on the grounds that the premises indicated are in a hygienic condition and therefore should be allowed to remain as they presently exist, when nothing short of wholesale demolition is necessary. The progress which the Western races have made in sanitation is the standard to which the Chinese and other Eastern races in our midst should be elevated. It cannot be admitted that by providing better housing accommodation and more sanitary surroundings their self-respect or freewill will be interfered with; but on the other hand the conditions not far removed from those of Eastern

slums will have a debasing effect, especially on their children born here and being educated at our State schools. Low-lying and swampy ground is being rapidly filled in. An inspection was also made of the sanitary depôt. Here the conditions were found to be most unsatisfactory, such as nightsoil being badly covered, providing means for multiplication of flies. The spread of disease by their agency is an ever-present danger to the residents in close vicinity to the depôt. Matters of detail for improvements in connection with sanitary executive have been placed before the Council by the Department. Since then the Council have had the Sanitary Conveniences and Nightsoil Regulations enforced for the Town of Cairns, and are contemplating having a daylight sanitary service, and the construction of an incinerator for the disposal of nightsoil.

*Cooktown.*—In accordance with instructions, an inspection of this town was made. The usual defects in closet construction were noted. No deodorant in the form of dry earth or other suitable material was being supplied in connection with the sanitary services, both of which encourage the breeding of flies. There is no system of garbage removal; the householders are supposed to remove their waste matter to a depression on the bank of the river in the heart of the town. Here trade and other refuse was deposited without being burnt or covered. A number of back yards were found to contain large heaps of refuse, the whole encouraging the breeding in large numbers of the ubiquitous disease-spreading fly. Improvements were also required in connection with the sanitary service, to which the Council's attention has been directed. Reports concerning these matters have been already submitted.

*Einasleigh.*—A visit of inspection of this town was made, and it was found to be in a fairly satisfactory condition. The attention of the Council was directed to matters of detail in connection with the sanitary service, which was calculated to further improve matters.

*Ingham.*—On inspection this town was found to be in a clean condition. The sanitary service is being well carried out, and is under the supervision of an energetic and reliable inspector. A decided improvement was noticed in connection with the earth closet. The Council realise the necessity of keeping the sanitary conditions of the town well up to date, and intend to have the Sanitary Conveniences and Nightsoil Regulations enforced for the towns of Ingham and Halifax.

*Irvinebank.*—The District Inspector was detailed to make an inspection of this town, and found the same sanitary conditions as have been repeatedly reported by myself and various other members of my staff. The cesspits were found to be in the same stinking condition, and all more or less half-full of water, which was teeming with mosquito larvæ. In some instances the pan system was in use. The occupiers remove the pan when full, and are supposed to cart it to the depôt (about two miles away) and bury the contents, but this practice has been more honoured in the breach than in the observance, as, on an inspection being made of the depôt, it was found to be in a most unsanitary state, nightsoil and household refuse indiscriminately scattered over a large area. This has been made



the subject of a special report, and the Council have been impressed with the necessity for immediate action.

*Innisfail.*—A revisit of inspection was made to this town. The general state of affairs was found to be much improved to that obtaining when the previous inspections were made. A new sanitary system, on the duplicate pan principle, was being prepared, consequently the town was in the transitory stage between the old dump-cart system and the more modern one. The best type of airtight pans were on hand, and everything indicated that the Council intended to have an up-to-date sanitary service. The usual defects in closet constructions were noted, also a number of dilapidated premises in Chinatown, but the Council intend to deal with these at an early date. The Sanitary Conveniences and Nightsoil Regulations have been gazetted for the town of Innisfail, and it is expected, when next an officer visits this district, everything will be found in accordance with the Department's requirements.

*Malanda.*—At the request of the Eaeham Shire Council, an inspection was made for the purpose of inspecting and reporting on the suitability of a sanitary site, it being the Council's intention to initiate a proper sanitary and garbage service on the daylight system. A house to house inspection was made of the Shire, and it was found that there was ample room for sanitary improvements, cesspits being in general use, and were sunk in close proximity to the wells from which the water supply is obtained. The fullest information regarding the initiation and cost of the required service was furnished to the Council. Application has now been made to the Home Secretary for a loan for the purpose of installing the above service.

*Mount Molloy.*—Inspection was made of this township. The paucity of population does not warrant a sanitary service being established, as the cost would be prohibitive if it were to be carried out as it should be. The greater number of premises have cesspits, and in some instances they were found to be in a most offensive condition, containing a quantity of liquid, evidently soakage due to the recent rains. Some of the pits are situated within a few feet of a creek from which the water supply is drawn during the dry season. However, a sanitary dépôt was selected in case the service should be put into operation. The Council have been impressed

with the seriousness of the present conditions, and requested, in the interest of public health, to give the matter serious consideration. While at Mount Molloy the inspector supervised the disinfection of the State school, and made an inquiry into an outbreak of diphtheria.

*Mossman.*—On an inspection of this town, the usual defects in closet construction were noted. The Council still cling to the antiquated dump cart, with all its attendant evils, for the collection of nightsoil. The methods of disposal at the dépôt were unsatisfactory. Suggestions have been put before the Council for effecting improvements in the sanitary service, together with the cost of installing the necessary services.

*Port Douglas.*—A sanitary survey was made of this town last November, and a site selected for a sanitary dépôt, and the Local Authority directed to take the necessary steps for the initiation of a sanitary service on the duplicate pan principle. On a reinspection being made in June, the town was found to be still in the same insanitary condition. This has been the subject of a special report, and the Council have been impressed with the necessity for immediate action. Particulars in connection therewith, together with the cost of installing the necessary service, have been supplied to the Council.

*Tolga.*—A cursory inspection of this town was made in order to ascertain whether the Tinaroo Shire Council had carried out the requirements of the Department in connection with the establishment of their conservancy system. A decided improvement was noted, all cesspits had been filled in, and the duplicate pan system, with daylight service, installed.

*Wolfram.*—An inspection was made of this town owing to an outbreak of typhoid fever, and it was found necessary to have the town thoroughly scavenged. Water supply was found to be contaminated by soakage from cesspits. At the instigation of the Department, the Council have decided to have the Sanitary Conveniences and Nightsoil Regulations enforced for the town and the inauguration of a proper conservancy system, a site being selected during the visit, and all necessary instructions as regards cost, &c., given to the Council.

JOHN SIMPSON,  
Chief Sanitary Inspector.





APPENDIX G.

REPORT OF CHIEF FOOD INSPECTOR.

Department of Public Health,  
Queensland,  
Brisbane, 28th August, 1916.

SIR,—The following is the Report of the Division of Food Inspection, showing in more or less detail the work performed in this connection during the fiscal year ending 30th June, 1916:—

STAFF.

The Staff employed upon the duties of food inspection during this period has consisted of seven full-time food inspectors and three officers, who have been employed upon part sanitary and part food inspection work.

The seven food inspectors have been stationed at Headquarters, and the three general inspectors at Rockhampton, Townsville, and Cairns respectively.

Only one alteration in the personnel of the staff has occurred since my last report was submitted, Inspector A. E. L. Mason leaving for service with the Expeditionary Forces in March and being replaced in June by temporary Inspector Wallace, late of Shanghai.

Inspector A. Nairn Young, who left with the Imperial Expeditionary Forces in August, 1914, remains on active service, and Inspector Buhôt still fills his place in a temporary capacity.

It is pleasing to record that Inspector Young, who was serving with the Army Service Corps in Egypt as quartermaster sergeant, has been awarded a commission in that corps, and is at present Officer in Charge of the 4th Australian Field Butchery.

SCHEME.

The work of the division, which has proceeded practically upon the lines followed in previous years, has consisted in the exercise of general supervision over all places in which food and drugs are offered for sale or prepared, manufactured, stored, or packed for sale for human consumption. The duties have necessitated surveillance over wharves, vessels, bond stores, markets, cold stores, railway depôts, hotels, bakeries, groceries, confectionery works, cake and biscuit factories, refreshment-rooms, restaurants,

ice-cream factories, tea-packing rooms, cereal factories, refreshment booths on showgrounds and racecourses, wholesale and retail drug stores, tobacco factories, tobacconists and hairdressing rooms, departmental stores, cordial factories, breweries, distilleries, food canning works of various descriptions, jam, pickle, and condiment factories, vehicles in which food of all kinds is conveyed for sale, pie and coffee stalls, hawkers' carts and barrows, milk vendors' carts and premises. Early morning and night work has been conducted as particular circumstances have required.

The material used, apparatus and methods employed, labelling conditions, upkeep of premises and plant, personal cleanliness of employees, &c., &c., have all been objects of special scrutiny on the part of the food inspectors.

Verbal instruction and inspectors' notices upon the spot have been issued for the correction of minor defects observed, while structural faults have been dealt with by communications issued from the office.

In the course of these inspections, samples have been obtained officially for legal purposes, and unofficially for investigation and confirmatory purposes.

Bread weighing, grocery weighing, liquor testing, and milk sampling have received special attention.

VISITS BY FOOD INSPECTORS OF HEADQUARTERS  
STAFF TO TOWNS OUTSIDE OF BRISBANE.

In addition to their work in and around the cities of Brisbane and South Brisbane, the food inspectors have visited the following places in outside areas lying between Brisbane and Rockhampton.

Against the date of visit will be found the officer's name and the particular duties upon which he was engaged.

In cases where the words "food inspection" appear in the column headed "Purpose of Visit," all traders handling food lines, so far as possible, were visited at such places, and, whenever time permitted, liquor testing was performed. At a number of the towns, bread weighing and milk sampling were carried out.

VISITS BY INSPECTORS TO COUNTRY TOWNS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

Date.	Place.	Purpose of Visit.	Inspector.
1 July ..	German Bridge ..	Food inspection .. ..	Mason
1 July ..	Eight-Mile Plains ..	Food inspection .. ..	Mason
1 July ..	Beenleigh .. ..	Food inspection .. ..	Mason
1 July ..	Yatala .. ..	Food inspection .. ..	Mason
1 July ..	German Bridge ..	Liquor testing .. ..	Plumb
1 July ..	Eight-Mile Plains ..	Liquor testing .. ..	Plumb
1 July ..	Beenleigh .. ..	Liquor testing .. ..	Plumb
1 July ..	Yatala .. ..	Liquor testing .. ..	Plumb
16 July ..	Bald Hills .. ..	Liquor testing .. ..	Plumb
16 July ..	Strathpine .. ..	Liquor testing .. ..	Plumb
16 July ..	North Pine .. ..	Liquor testing .. ..	Plumb
16 July ..	Bald Hills .. ..	Food inspection .. ..	Stewart
16 July ..	Strathpine .. ..	Food inspection .. ..	Stewart
26 July ..	North Pine .. ..	Food inspection .. ..	Stewart
22 July ..	Ipswich .. ..	Liquor testing, prosecution ..	Plumb
26-28 July ..	Caboolture .. ..	Bread weighing, food inspection ..	Beaver
28-31 July ..	Gympie .. ..	Food inspection .. ..	Beaver
1-5 August ..	Bundaberg .. ..	Bread weighing, food inspection ..	Beaver
5-9 August ..	Gladstone .. ..	Food inspection .. ..	Beaver



VISITS BY INSPECTORS TO COUNTRY TOWNS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.—*continued.*

Date.	Place.	Purpose of Visit.	Inspector.
9-10 August ..	Miriam Vale ..	Food inspection .. ..	Beaver
10 August ..	Rosedale ..	Food inspection .. ..	Beaver
11-12 August ..	Avondale ..	Food inspection .. ..	Beaver
12-13 August ..	Bundaberg ..	Bread weighing, food inspection ..	Beaver
9 August ..	Laidley ..	Food inspection .. ..	Mason
9-10 August ..	Gatton ..	Food inspection .. ..	Mason
13-14 August ..	Gin Gin ..	Food inspection .. ..	Beaver
14-19 August ..	Mount Perry ..	Food inspection .. ..	Beaver
19-21 August ..	Howard ..	Food inspection .. ..	Beaver
21-27 August ..	Maryborough ..	Food inspection .. ..	Beaver
27-30 August ..	Childers ..	Food inspection .. ..	Beaver
1 September	Cordalba ..	Food inspection .. ..	Beaver
1 September	Maryborough ..	Food inspection .. ..	Beaver
2 September	Caboolture ..	Food inspection .. ..	Beaver
8 September	Ipswich ..	Liquor testing .. ..	Plumb
10 September	Beenleigh ..	Liquor testing .. ..	Plumb
24 September	Mount Gravatt ..	Liquor testing .. ..	Plumb
24 September	Eight-Mile Plains ..	Liquor testing .. ..	Plumb
24 September	Beenleigh ..	Liquor testing .. ..	Plumb
27-28 September	Landsborough ..	Food inspection .. ..	Stewart
28-29 September	Palmwoods ..	Food inspection .. ..	Stewart
29-30 September	Nambour ..	Food inspection .. ..	Stewart
1 October ..	Kilkivan ..	Food inspection .. ..	Stewart
2 October ..	Kingaroy ..	Food inspection .. ..	Stewart
2-5 October ..	Nanango ..	Food inspection .. ..	Stewart
6-8 October ..	Kingaroy ..	Food inspection .. ..	Stewart
4 October ..	Sandgate ..	Liquor testing .. ..	Plumb
8-9 October ..	Wondai ..	Food inspection .. ..	Stewart
11-12 October ..	Murgon ..	Food inspection .. ..	Stewart
13-14 October ..	Goomeri ..	Food inspection .. ..	Stewart
14 October ..	Kilkivan ..	Food inspection .. ..	Stewart
15 October ..	Mungar Junction ..	Food inspection .. ..	Stewart
15-16 October ..	Biggenden ..	Food inspection .. ..	Stewart
18-20 October ..	Gayndah ..	Food inspection .. ..	Stewart
20-21 October ..	Degilbo ..	Food inspection .. ..	Stewart
22 October ..	Caboolture ..	Food inspection .. ..	Stewart
22-25 October ..	Kilcoy ..	Food inspection .. ..	Stewart
25-26 October ..	Woodford ..	Food inspection .. ..	Stewart
24-27 October ..	Bundaberg ..	Prosecutions, food inspection ..	Beaver
27-29 October ..	Gladstone ..	Prosecutions, food inspection ..	Beaver
29 October ..	Miriam Vale ..	Food inspection .. ..	Beaver
29-31 October ..	Maryborough ..	Food inspection .. ..	Beaver
1-3 November ..	Maryborough ..	Prosecutions .. ..	Beaver
4 November ..	Gympie ..	Milk sampling .. ..	Beaver
5 November ..	Pomona ..	Food inspection .. ..	Beaver
16-18 December ..	Gympie ..	Food inspection, prosecutions ..	Beaver
16 December ..	Sandgate ..	Liquor testing .. ..	Plumb
5-6 January ..	Gayndah ..	Food inspection, prosecutions ..	Stewart
6-7 January ..	Biggenden ..	Food inspection, prosecutions ..	Stewart
7 January ..	Wynnum ..	Liquor testing .. ..	Plumb
7-8 January ..	Maryborough ..	Food inspection, prosecutions ..	Stewart
10 January ..	Murgon ..	Food inspection .. ..	Stewart
11 January ..	Nanango ..	Food inspection, prosecutions ..	Stewart
12 January ..	Maryborough ..	Food inspection, prosecutions ..	Stewart
12 January ..	Pialba ..	Food and sanitary inspection ..	Stewart
12 January ..	Nikenbah ..	Food and sanitary inspection ..	Stewart
13 January ..	Pialba ..	Food and sanitary inspection ..	Stewart
13 January ..	Scarborough ..	Food and sanitary inspection ..	Stewart
13 January ..	Torquay ..	Food and sanitary inspection ..	Stewart
13 January ..	Urangan ..	Food inspection .. ..	Stewart
14-15 January ..	Pialba ..	Food and sanitary inspection ..	Stewart
14 January ..	Scarborough ..	Sanitary inspection .. ..	Stewart
17-18 January ..	Maryborough ..	Food inspection .. ..	Stewart
19 January ..	Caboolture ..	Food inspection .. ..	Stewart
19-21 January ..	Woodford ..	Food inspection .. ..	Stewart
27-28 January ..	Nambour ..	Food inspection .. ..	Stewart
10 February ..	Capalaba ..	Liquor testing .. ..	Plumb
10 February ..	Cleveland ..	Liquor testing .. ..	Plumb
10 February ..	Wellington Point ..	Liquor testing .. ..	Plumb
10 February ..	Capalaba ..	Food inspection .. ..	Stewart
10 February ..	Cleveland ..	Food inspection .. ..	Stewart
10 February ..	Wellington Point ..	Food inspection .. ..	Stewart
29 February ..	Strathpine ..	Liquor testing .. ..	Plumb
29 February ..	North Pine ..	Liquor testing .. ..	Plumb
2 March ..	Bald Hills ..	Liquor testing .. ..	Plumb
2 March ..	Aspley ..	Liquor testing .. ..	Plumb
6 March ..	Ipswich ..	Liquor testing, prosecution ..	Plumb
9 March ..	Zillmere ..	Food inspection .. ..	Stewart
9 March ..	Zillmere ..	Liquor testing .. ..	Plumb
31 March ..	Nambour ..	Food inspection, prosecution ..	Stewart
12 April ..	Zillmere ..	Water samples .. ..	Stewart
12 April ..	Zillmere ..	Water samples .. ..	Sanderson
27 April ..	Beenleigh ..	Liquor testing .. ..	Plumb
27 April ..	Waterford ..	Liquor testing .. ..	Plumb
27 April ..	Waterford ..	Food inspection .. ..	Sanderson
27 April ..	Beenleigh ..	Food inspection .. ..	Sanderson
9-15 May ..	Toowoomba ..	Food inspection, bread weighing ..	Beaver



VISITS BY INSPECTORS TO COUNTRY TOWNS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.—*continued.*

Date.	Place.	Purpose of Visit.	Inspector.
15-16 May	Cambooya	Food inspection	Beaver
16-18 May	Clifton	Food inspection	Beaver
18 May	Hendon	Food inspection	Beaver
18-20 May	Allora	Food inspection	Beaver
16-18 May	Esk	Food inspection	Stewart
18-20 May	Toogoolawah	Food inspection	Stewart
21-25 May	Warwick	Food inspection, milk sampling	Beaver
21-23 May	Blackbutt	Food inspection	Stewart
23 May	Benarkin	Food inspection	Stewart
23 May	Linville	Food inspection	Stewart
23 May	Moore	Food inspection	Stewart
24-25 May	Lowood	Food inspection	Stewart
26 May	Tarampa	Food inspection	Stewart
26-29 May	Goondiwindi	Food inspection	Beaver
27 May	Marburg	Food inspection	Stewart
28-29 May	Helidon	Food inspection	Stewart
30-31 May	Gatton	Food inspection	Stewart
30-31 May	Inglewood	Food inspection	Beaver
1 June	Warwick	Food inspection, milk sampling	Beaver
1-3 June	Stanthorpe	Food inspection, milk sampling	Beaver
5-8 June	Killarney	Food inspection	Beaver
8-9 June	Toowoomba	Milk sampling	Beaver
1 June	Forest Hill	Food inspection	Stewart
2-6 June	Laidley	Food inspection	Stewart
7-8 June	Rosewood	Food inspection	Stewart
9-12 June	Boonah	Food inspection	Stewart
9-13 June	Pittsworth	Food inspection	Beaver
13 June	Harrisville	Food inspection	Stewart
14-18 June	Ipswich	Food inspection, milk sampling	Stewart
13-15 June	Oakey	Food inspection	Beaver
15-17 June	Cooyar	Food inspection	Beaver
17-19 June	Toowoomba	Food inspection	Beaver
20-21 June	Goombungee	Food inspection	Beaver
22 June	Haden	Food inspection	Beaver
23 June	Goombungee	Food inspection	Beaver
23 June	Sunnyside	Food inspection	Beaver
23 June	Meringandan	Food inspection	Beaver

## UN SOUND FOOD.

Reports of Inspectors of Headquarters Staff show stocks of foodstuffs held by merchants and retail traders in the areas coming under their purview to have been in better condition all round this year than was the case in any one of the three years previous, and it is evident that a great deal more care and discrimination than was formerly exercised is now being shown by both wholesalers and storekeepers in the ordering and keeping of goods.

As a result, I am pleased to be able to record that the total weight of food material found deteriorated and unfit for consumption during the twelve months amounted to 10 tons 2 cwt. 0 qr. 18 lb. only. These figures compare very favourably with those of last year's operations, when over 30 tons' weight of deteriorated foods were handled by Headquarters Staff.

The following is a detailed list of the articles rejected and disposed of by the owners in a manner to the satisfaction of the Department's officers:—

## FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION (HEADQUARTERS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Article.	Quantity.	Weight.			
			Tons	cwt.	qr.	lb.
1	Beans	32 bags	0	4	1	11
2	Cakes and Confectionery	6 parcels	0	0	2	15
3	Cordials	99 bottles	0	1	1	20
4	Crabs	3 cases	0	3	0	0
5	Fish, Herrings (canned)	827 tins	0	10	1	4
6	Fish, Sardines (canned)	8,322 tins	0	19	1	17½
7	Fish, Salt Salmon	5 casks	0	10	0	0
8	Fish Paste	6 pots	0	0	0	1½
9	Fish, Sardelles	43 tins	0	0	1	15
10	Food, Infants'	192 bottles	0	1	0	2
11	Fish, Whitebait	447 tins	0	3	3	27
12	Jam	226 tins	0	6	0	0
13	Medicine, Patent	33 boxes	0	3	2	14
14	Mustard	618 tins	0	2	2	17½
15	Milk (canned)	50 tins	0	0	1	22
16	Nuts	20 cases	0	10	0	0
17	Onions	1 bag	0	7	3	9
18	Potatoes	7 bags	0	7	1	1
19	Sugar	6 bags	0	0	3	6
20	Soup	204 tins	0	1	3	9
21	Fruit, Dried	56 cases	0	13	3	24
22	Fruit, Assorted	186 cases	4	13	0	0
23	Cocoa and Chocolate	9 cases	0	7	0	18
TOTAL			10	4	0	9



## SAMPLING.

During the period under review 1,449 samples of food and drugs were collected and submitted for analysis by the Department's officers.

Of this total, 682 were purchased or removed officially for legal purposes and 798 obtained in an informal manner for confirmatory and investigation purposes.

Following is a list of the articles included and results obtained:—

SAMPLES SUBMITTED FOR ANALYSIS FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Food or Drug.	TOTAL.		OFFICIAL.		UNOFFICIAL.	
		Passed.	Failed.	Passed.	Failed.	Passed.	Failed.
1	Baking Powder .. .. .	23	8	..	..	23	8
2	Beer .. .. .	4	3	..	2	4	1
3	Beverages and Cordials .. .. .	55	34	22	16	33	18
4	Brandy .. .. .	7	29	7	23	..	6
5	Bread .. .. .	3	..	3	..	..	..
6	Butter .. .. .	2	..	..	..	2	..
7	Cake .. .. .	1	..	1	..	..	..
8	Chcese .. .. .	1	1	..	..	1	1
9	Coffee .. .. .	1	1	..	..	1	1
10	Corned Beef .. .. .	1	..	1	..	..	..
11	Colours and Dyes .. .. .	2	8	..	..	2	8
12	Condiments .. .. .	..	4	..	..	..	4
13	Cream .. .. .	..	1	..	1	..	..
14	Cream of Tartar .. .. .	30	13	10	8	20	5
15	Currants and Raisins .. .. .	3	..	3	..	..	..
16	Custard, Cake, Pudding Powder .. .. .	21	3	..	..	21	3
17	Disinfectants .. .. .	1	1	..	..	1	1
18	Drugs and Medicines .. .. .	73	4	..	..	73	4
19	Essences .. .. .	23	14	1	1	22	13
20	Fish (canned) .. .. .	75	13	..	..	75	13
21	Fish (not canned) .. .. .	6	4	..	..	6	4
22	Flours .. .. .	14	..	..	..	14	..
23	Fruit, Crystals .. .. .	..	3	..	..	..	3
24	Fruit, Dried .. .. .	2	4	..	..	2	4
25	Fruit (canned) .. .. .	1	1	..	..	1	1
26	Gin .. .. .	4	3	4	1	..	2
27	Ice-cream and Ices .. .. .	10	2	..	..	10	2
28	Jams and Jellies .. .. .	27	3	..	..	27	3
29	Lead (Butcher's Block) .. .. .	..	2	..	2	..	..
30	Margarine .. .. .	7	..	..	..	7	..
31	Meat (canned) .. .. .	7	6	..	..	7	6
32	Meat (uncanned) .. .. .	29	13	..	..	29	13
33	Milk, Condensed .. .. .	6	..	..	..	6	..
34	Milk, Fresh .. .. .	370	85	349	79	21	6
35	Milk, Dried .. .. .	3	..	..	..	3	..
36	Miscellaneous .. .. .	65	12	..	..	65	12
37	Mince and Sausages .. .. .	28	19	28	19	..	..
38	Oils, Essential, Medicated, &c. .. .. .	24	7	..	..	24	7
39	Peas (canned) .. .. .	..	2	..	..	..	2
40	Pepper .. .. .	..	1	..	1	..	..
41	Rum .. .. .	9	9	6	9	3	..
42	Sauces .. .. .	4	..	..	..	4	..
43	Sardines .. .. .	..	4	..	4	..	..
44	Sugar .. .. .	1	..	1	..	..	..
45	Soap .. .. .	7	2	..	..	7	2
46	Spices .. .. .	1	4	..	..	1	4
47	Tobacco .. .. .	..	4	..	..	..	4
48	Tartaric Acid .. .. .	7	..	7	..	..	..
49	Toilet Preparations .. .. .	69	5	..	..	69	5
50	Vegetables, Canned .. .. .	12	1	..	..	12	1
51	Vinegar .. .. .	1	3	..	..	1	3
52	Whisky .. .. .	6	54	6	49	..	5
53	Wine .. .. .	27	2	2	1	25	1
54	Water (submitted), Potability .. .. .	32	..	..	..	..	..
55	Not Analysed .. .. .	..	..	..	15	..	..
		1,105	392	451	231	622	176

## PROSECUTIONS.

Ninety-eight prosecutions of individuals and firms for breaches of the provisions of Part VI. of the Health Acts, and of the Food and Drug Regulations, were undertaken by members of the Headquarters Staff during the year.

In 96 instances verdicts were obtained in the Department's favour, and in 2 instances cases were dismissed upon technicalities.

Penalties totalling fines £529 17s. 6d. and costs £167 11s. 6d. were imposed by the police

magistrates, the average penalty per case (all cases) working out at—fine, £5 8s. 1d.; costs, £1 14s.

Of 38 persons charged with selling adulterated milk 37 were convicted and fined. The average penalty on this count works out at—fine, £8 14s. 6d.; and costs, £2 4s. 9d. per case. The lowest fine recorded for milk adulteration was £1, and the highest £20.

In 18 of the 37 cases the fine imposed was £10 and upwards, whilst in 11 instances the fine was £5 and upwards.



Under the heading "Miscellaneous Prosecutions" are included 28 cases, in 27 of which convictions were obtained. The majority of these prosecutions were against milk vendors for obstruction of inspectors, refusing to supply samples, using rag to close can lids, having dirty and dilapidated milk cans and measures, and carrying water on milk carts. The average fine inflicted for this class of offence was £3 4s. 7d., and costs £1 3s. 1d.

In two instances milk vendors were fined £10 for refusing to supply officers with a sample of their milk demanded.

For food adulteration 21 prosecutions were conducted and a conviction obtained in each case. The average fine imposed was £3 11s. 8d., and costs £1 18s. 4d.

Eleven persons were proceeded against for the sale of adulterated liquor and all were found guilty of the charge. The average penalty for offences under this heading works out at a fine of £4 1s. and costs £1 4s. 4d. per case.

In addition, the placarding of premises and endorsement of license was ordered by the police magistrate in a number of instances.

The following is a detailed list of the prosecutions referred to:—

PROSECUTIONS FOR MILK ADULTERATION (HEADQUARTERS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915-16.			£ s. d.	£ s. d.
1	13 July .. ..	Brisbane .. ..	Added water, 15·8 per cent. ..	10 0 0	3 13 4
2	15 July .. ..	South Brisbane ..	Added water, 16·5 per cent. ..	10 0 0	3 18 4
3	15 July .. ..	South Brisbane ..	Added water .. ..	10 0 0	1 1 0
4	22 July .. ..	South Brisbane ..	Added water, 15·8 per cent. ..	10 0 0	3 6 6
5	28 September ..	South Brisbane ..	Added water .. ..	10 0 0	2 12 4
6	28 September ..	South Brisbane ..	Added water .. ..	5 0 0	3 6 6
7	28 September ..	South Brisbane ..	Added water .. ..	10 0 0	3 6 6
8	28 September ..	South Brisbane ..	Added water .. ..	1 0 0	3 6 6
9	26 October .. ..	Bundaberg .. ..	Added water .. ..	2 0 0	3 6 6
10	26 October .. ..	Bundaberg .. ..	Added water .. ..	12 10 0	3 6 6
11	26 October .. ..	Bundaberg .. ..	Added water .. ..	15 0 0	3 13 4
12	28 October .. ..	Gladstone .. ..	Added water .. ..	10 0 0	3 6 6
13	28 October .. ..	Gladstone .. ..	Added water .. ..	10 0 0	3 8 4
14	28 October .. ..	Gladstone .. ..	Added water .. ..	..	1 4 6
15	2 November .. ..	Maryborough .. ..	Added water .. ..	5 0 0	2 12 4
16	2 November .. ..	Maryborough .. ..	Added water .. ..	5 0 0	2 7 4
17	2 November .. ..	Maryborough .. ..	Added water .. ..	5 0 0	2 5 6
18	2 November .. ..	Maryborough .. ..	Added water .. ..	5 0 0	2 5 6
19	2 December .. ..	Brisbane .. ..	Added water, 21·8 per cent. ..	20 0 0	1 4 6
20	17 December .. ..	Gympie .. ..	Added water, 7 per cent. ..	5 0 0	2 5 6
21	11 January .. ..	Nanango .. ..	Added water, 5·0 per cent. ..	2 0 0	1 11 4
22	6 January .. ..	Gayndah .. ..	Added water, 6·3 per cent. ..	3 0 0	1 6 4
23	6 January .. ..	Gayndah .. ..	Added water, 18·0 per cent. ..	3 0 0	1 4 6
24	6 January .. ..	Gayndah .. ..	Added water, 7·0 per cent. ..	3 0 0	1 4 6
25	25 January .. ..	Brisbane .. ..	Added water, 23·0 per cent. ..	18 15 6	1 4 6
26	25 January .. ..	Brisbane .. ..	Added water, 7·6 per cent. ..	10 0 0	1 4 6
27	25 January .. ..	Brisbane .. ..	Added water, 6·7 per cent. ..	18 15 6	1 4 6
28	25 January .. ..	Brisbane .. ..	Added water, 14·0 per cent. ..	20 0 0	1 6 4
29	15 January .. ..	Brisbane .. ..	Added water .. ..	8 0 0	0 3 6
30	29 February .. ..	Brisbane .. ..	Added water, 10 per cent. ..	8 0 0	1 4 6
31	31 March .. ..	Nambour .. ..	Added water, 20·9 per cent. ..	5 0 0	1 4 6
32	4 April .. ..	Brisbane .. ..	Added water, 24·5 per cent. ..	20 0 0	1 11 4
33	4 April .. ..	Brisbane .. ..	Added water, 12·0 per cent. ..	13 8 8	1 11 4
34	28 April .. ..	Brisbane .. ..	Added water, 7·0 per cent. ..	1 7 4	3 13 4
35	16 May .. ..	Brisbane .. ..	Added water, 13·6 per cent. ..	18 0 0	3 13 4
36	16 May .. ..	Brisbane .. ..	Added water, 5·0 per cent. ..	5 0 0	0 3 6
37	22 June .. ..	Brisbane .. ..	Added water, 12·7 per cent. ..	dismissed	
38	12 June .. ..	Brisbane .. ..	Added water, 9·0 per cent. ..	5 0 0	3 6 6
TOTALS .. ..				£322 17 0	£82 15 8

MISCELLANEOUS PROSECUTIONS (HEADQUARTERS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	1 July .. ..	Brisbane .. ..	Refusing milk sample .. ..	10 0 0	3 6 6
2	8 July .. ..	Brisbane .. ..	Dented milk measure .. ..	0 10 0	0 3 6
3	10 August .. ..	Gatton .. ..	Short-weight bread .. ..	8 0 0	2 5 6
4	26 August .. ..	Brisbane .. ..	Fruit, etc., in bedroom .. ..	1 0 0	0 3 6
5	28 September ..	Brisbane .. ..	Obstruction (Section 107) .. ..	Dismissed	
6	2 September ..	South Brisbane ..	Obstruction (Section 107) .. ..	5 0 0	2 5 6
7	15 September ..	Brisbane .. ..	Obstruction (Section 107) .. ..	6 13 6	3 6 6
8	26 October .. ..	Bundaberg .. ..	Rag in milk can lid .. ..	2 0 0	2 5 6
9	28 October .. ..	Gladstone .. ..	Rag in milk can lid .. ..	1 0 0	2 5 6
10	28 October .. ..	Gladstone .. ..	Rag in milk can lid .. ..	1 0 0	2 5 6
11	2 November .. ..	Maryborough .. ..	Rag in milk can lid .. ..	1 0 0	1 4 6
12	2 November .. ..	Maryborough .. ..	Rag in milk can lid .. ..	1 0 0	1 4 6
13	2 November .. ..	Maryborough .. ..	Rag in milk can lid .. ..	1 0 0	1 4 6
14	16 November ..	Brisbane .. ..	Ices unprotected (Regulation 163)	2 0 0	0 5 4
15	17 December ..	Gympie .. ..	Rag in milk can lid .. ..	0 10 0	1 4 6
16	17 December ..	Gympie .. ..	Rag in milk can lid .. ..	0 10 0	1 4 6
17	10 January .. ..	Murgon .. ..	Dirty milk can (Regulation 163)	2 0 0	0 3 6
18	25 January .. ..	Brisbane .. ..	Interior milk exposed (Reg. 184) ..	2 14 6	2 5 6



MISCELLANEOUS PROSECUTIONS (HEADQUARTERS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916—*continued.*

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
19	1 February ..	Brisbane ..	Breach of Regulation 163 ..	2 0 0	0 3 6
20	24 February ..	Brisbane ..	Refusing milk sample ..	5 0 0	0 3 6
21	14 March ..	Brisbane ..	Short weight bread ..	5 0 0	0 3 6
22	4 April ..	Brisbane ..	Refusing milk sample ..	9 16 6	0 3 6
23	20 April ..	Brisbane ..	Refusing milk sample ..	10 0 0	2 5 6
24	28 April ..	Brisbane ..	Carrying water on milk cart ..	0 16 6	0 3 6
25	28 April ..	Brisbane ..	Carrying water on milk cart ..	0 16 6	0 3 6
26	28 April ..	Brisbane ..	Carrying water on milk cart ..	0 16 6	0 3 6
27	16 May ..	Brisbane ..	Carrying water on milk cart ..	5 0 0	0 3 6
28	12 June ..	Brisbane ..	Carrying water on milk cart ..	2 0 0	0 3 6
TOTALS .. ..				£87 4 0	£31 1 4

## PROSECUTIONS FOR ADULTERATION OF MISCELLANEOUS FOODS (HEADQUARTERS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Class of Food.	Basis of Prosecution.	Fines.	Costs.
					£ s. d.	£ s. d.
1	28 October ..	Gladstone ..	Mincemeat ..	Excess SO <sub>2</sub> ..	5 0 0	3 6 6
2	28 October ..	Gladstone ..	Mincemeat ..	Excess SO <sub>2</sub> ..	5 0 0	3 6 6
3	2 November ..	Maryborough ..	Mincemeat ..	Excess SO <sub>2</sub> ..	5 0 0	2 5 6
4	2 November ..	Maryborough ..	Mincemeat ..	Excess SO <sub>2</sub> ..	5 0 0	2 10 6
5	2 November ..	Maryborough ..	Mincemeat ..	Excess SO <sub>2</sub> ..	5 0 0	2 8 6
6	10 January ..	Murgon ..	Cream of tartar	Added acid, Calc. Phos. 11·0 per cent.	2 0 0	3 8 4
7	20 January ..	Woodford ..	Mincemeat ..	Excess SO <sub>2</sub> , 31 per cent.	3 0 0	1 4 6
8	1 February ..	Nambour ..	Cream of tartar	Added acid, Calc. Phos., 62 per cent.	3 15 6	1 4 6
9	4 January ..	Brisbane ..	Cream of tartar	False description ..	2 0 0	3 8 4
10	29 February ..	Brisbane ..	Compound cordial sarsaparilla	Pot. Iodide adulterated with K.L.	1 0 0	3 13 4
11	31 March ..	Nambour ..	Lime juice cordial	Excess preservative, and deficient sugar	0 10 0	1 4 6
12	4 April ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 168 per cent.	5 0 0	1 4 6
13	18 April ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 40 per cent.	5 0 0	1 4 6
14	4 May ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 148 per cent.	5 0 0	1 4 6
15	4 May ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 54 per cent.	5 0 0	1 4 6
16	4 May ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 222 per cent.	5 0 0	1 4 6
17	4 May ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 520 per cent.	5 0 0	1 4 6
18	4 May ..	Brisbane ..	Mincemeat ..	Excess SO <sub>2</sub> , 77 per cent.	5 0 0	1 4 6
19	22 June ..	Brisbane ..	Compound cordial sarsaparilla	Adulterated with K.I. ..	1 0 0	1 4 6
20	22 June ..	Brisbane ..	Compound cordial sarsaparilla	Adulterated with K.I. ..	1 0 0	1 4 6
21	22 June ..	Brisbane ..	Compound cordial sarsaparilla	Adulterated with K.I. ..	1 0 0	1 4 6
TOTALS .. ..					£75 5 6	£40 6 0

## PROSECUTIONS FOR ADULTERATION OF ALCOHOLIC LIQUORS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Class of Liquor.	Basis of Prosecution	Fines.	Costs.
					£ s. d.	£ s. d.
1	31 August ..	South Brisbane	Brandy ..	Flies and filth ..	10 0 0	0 3 6
2	8 September ..	Ipswich ..	Rum ..	Added water ..	2 15 6	2 4 6
3	9 September ..	Brisbane ..	Gin ..	Added water ..	5 0 0	1 4 6
4	26 November ..	Brisbane ..	Brandy ..	Added water, 5 per cent. ..	5 0 0	1 4 6
5	26 November ..	Brisbane ..	Brandy ..	Added water, 17 per cent. ..	5 0 0	1 4 6
6	2 December ..	Brisbane ..	Gin ..	Added water ..	1 0 0	1 4 6
7	6 January ..	Gayndah ..	Whisky ..	Added water, 4 per cent. ..	3 0 0	1 4 6
8	6 January ..	Gayndah ..	Whisky ..	Added water, 18 per cent. ..	3 0 0	1 4 6
9	6 January ..	Gayndah ..	Whisky ..	Added water, 4·6 per cent. ..	3 0 0	1 4 6
10	18 January ..	Maryborough	Whisky ..	Added water, 8·3 per cent. ..	3 15 6	1 4 6
11	28 March ..	Capalaba ..	Whisky ..	Added water, 8 per cent. ..	3 0 0	1 4 6
TOTALS .. ..					£44 11 0	£13 8 6

## CENTRAL QUEENSLAND.

In the Central District, which is operated by Inspector Wiseman, from Rockhampton Centre, 864 premises connected with the manufacture, sale, or storage of food and drugs were inspected during the year.

These businesses include bakehouses, cake and biscuit factories, aerated water and beverage factories, chemists' shops, general stores, hotels, markets, auction-rooms, refreshment-rooms, restaurants, wharves, warehouses, food factories, milk carts, &c.



As a result of his inspections, the following list of unsound and deteriorated foods was unearthed by Inspector Wiseman, who satisfied himself that the goods therein specified were removed from sale and destroyed:—

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION (CENTRAL DISTRICT).															
No.	Article.											Weight.			
												Tons	cwt.	qr.	lb.
1	Canned fish	..	..	..	..	..	..	..	..	..	..	0	4	2	22
2	Dried fruits	..	..	..	..	..	..	..	..	..	..	0	2	2	2
3	Meats, preserved	..	..	..	..	..	..	..	..	..	..	0	0	2	18
4	Jam	..	..	..	..	..	..	..	..	..	..	0	2	2	15
5	Fruit, eanned	..	..	..	..	..	..	..	..	..	..	0	3	1	0
6	Milk, condensed	..	..	..	..	..	..	..	..	..	..	0	0	0	3
7	Pickles	..	..	..	..	..	..	..	..	..	..	0	0	0	26
8	Spices	..	..	..	..	..	..	..	..	..	..	0	0	0	1
9	Essences	..	..	..	..	..	..	..	..	..	..	0	0	0	5
10	Tea	..	..	..	..	..	..	..	..	..	..	0	0	0	5
11	Confectionery	..	..	..	..	..	..	..	..	..	..	0	0	2	14
12	Infants' food	..	..	..	..	..	..	..	..	..	..	0	1	2	4
13	Potatoes	..	..	..	..	..	..	..	..	..	..	3	0	0	0
	TOTAL	..	..	..	..	..	..	..	..	..	..	3	16	1	3

PROSECUTIONS—CENTRAL QUEENSLAND.

Thirteen individuals and firms were prosecuted by Inspector Wiseman for breaches of the Health Acts and Food and Drug Regulations during the year, and a conviction obtained in each instance. Total penalties imposed amount to £89 12s. 4d. fines, and £12 14s. 6d. costs.

The average penalty per case (all prosecutions) works out at—fine, £6 17s. 8d.; and costs, 19s. 6d.

For the offence of milk adulteration the average penalty secured by Inspector Wiseman in the Central Area works out at £13 17s. 8d. fine, and 4s. costs per case. The highest fine inflicted was £20 and the lowest £9 8s.

Details of cases are as follow:—

PROSECUTIONS FOR MILK ADULTERATION (ROCKHAMPTON), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.												
No.	Date.		Place.		Basis of Prosecution.		Fines.			Costs.		
							£	s.	d.	£	s.	d.
1	24 December	..	Rockhampton	..	Added water, 5·8 per cent.	..	10	0	0	0	3	6
2	24 December	..	Rockhampton	..	Added water, 8·5 per cent.	..	10	12	6	0	3	6
3	24 December	..	Rockhampton	..	Added water, 9·4 per cent.	..	9	8	0	0	3	6
4	24 December	..	Rockhampton	..	Added water, 26·7 per cent.	..	20	0	0	0	3	6
5	24 December	..	Rockhampton	..	Added water, 19·4 per cent.	..	19	8	0	0	6	0
					TOTALS	.. ..	£69	8	6	£1	0	0

PROSECUTION FOR ADULTERATING ALCOHOLIC LIQUORS (CENTRAL DISTRICTS), FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.															
No.	Date.		Place.		Class of Liquor:		Basis of Prosecution.			Fines.			Costs.		
										£	s.	d.	£	s.	d.
1	11 January	..	Mt. Morgan	..	Brandy	..	Added water	..	..	3	9	8	1	10	4

PROSECUTIONS (MISCELLANEOUS)—CENTRAL DISTRICT.												
No.	Date.		Place.		Basis of Prosecution.		Fines.			Costs.		
							£	s.	d.	£	s.	d.
1	24 December	..	Rockhampton	..	Obstruction	.. ..	3	0	0	2	5	6
2	4 January	..	Mount Morgan	..	Breach of Regulation 163	..	1	0	0	0	9	4
3	4 January	..	Mount Morgan	..	Breach of Regulation 163	..	1	0	0	0	9	4
4	4 February	..	Rockhampton	..	Breach of Regulation 163	..	2	0	0	0	3	6
5	5 November	..	Emu Park	..	Light-weight bread	..	5	8	3	2	5	6
6	5 November	..	Marmor	..	Light-weight bread	..	2	4	6	2	5	6
7	18 January	..	Mount Morgan	..	Light-weight bread	..	2	1	5	2	5	6
					TOTALS	.. ..	£16	14	2	£10	4	2



## CENTRAL QUEENSLAND COUNTRY TOURS.

In addition to food work in and around the city of Rockhampton, visits upon food inspection duties have been paid by Inspector Wiseman to towns in the Central Area as follows:—

1915.									
20-22 September	..	..	..	Marmor	..	..	..	..	Food and sanitary
22 September	..	..	..	Mount Larcom	..	..	..	..	Food and sanitary
23 September	..	..	..	Raglan	..	..	..	..	Food and sanitary
24 September	..	..	..	Bajool	..	..	..	..	Food and sanitary
27-29 September	..	..	..	Emu Park	..	..	..	..	Food and sanitary
29 September to 4th October	..	..	..	Mount Morgan	..	..	..	..	Food and sanitary
4 October	..	..	..	Kabra	..	..	..	..	Food and sanitary
5 October	..	..	..	Gracemere	..	..	..	..	Food and sanitary
8-12 October	..	..	..	Longreach	..	..	..	..	Food and sanitary
1916.									
4 January	..	..	..	Mount Morgan	..	..	..	..	Prosecutions
11 January	..	..	..	Mount Morgan	..	..	..	..	Prosecutions
20 March	..	..	..	Westwood	..	..	..	..	Food and sanitary
21 March	..	..	..	Duaringa	..	..	..	..	Food and sanitary
22-24 March	..	..	..	Emerald	..	..	..	..	Food and sanitary
24 March	..	..	..	Capella	..	..	..	..	Food and sanitary
25-28 March	..	..	..	Clermont	..	..	..	..	Food and sanitary
28 March	..	..	..	Blair Athol	..	..	..	..	Food and sanitary
29 March	..	..	..	Clermont	..	..	..	..	Food and sanitary
30 March to 1 April	..	..	..	Springsure	..	..	..	..	Food and sanitary
1-3 April	..	..	..	Bogantungan	..	..	..	..	Food and sanitary
4 April	..	..	..	Alpha	..	..	..	..	Food and sanitary
5 April	..	..	..	Jericho	..	..	..	..	Food and sanitary
6-10 April	..	..	..	Barcaldine	..	..	..	..	Food and sanitary
10-12 April	..	..	..	Aramac	..	..	..	..	Food and sanitary
12-18 April	..	..	..	Longreach	..	..	..	..	Food and sanitary
18-23 April	..	..	..	Blackall	..	..	..	..	Food and sanitary
23 April	..	..	..	Northampton	..	..	..	..	Food and sanitary
23-26 April	..	..	..	Tambo	..	..	..	..	Food and sanitary
26 April	..	..	..	Nive	..	..	..	..	Food and sanitary
26-28 April	..	..	..	Augathella	..	..	..	..	Food and sanitary
28 April	..	..	..	Bardenthalla	..	..	..	..	Food and sanitary
28 April to 4 May	..	..	..	Charleville	..	..	..	..	Food and sanitary
4-6 May	..	..	..	Morven	..	..	..	..	Food and sanitary
6-9 May	..	..	..	Mitchell	..	..	..	..	Food and sanitary
9-13 May	..	..	..	Roma	..	..	..	..	Food and sanitary
13-15 May	..	..	..	Yeulba	..	..	..	..	Food and sanitary
15-17 May	..	..	..	Miles	..	..	..	..	Food and sanitary
17-19 May	..	..	..	Taroom	..	..	..	..	Food and sanitary
19 May	..	..	..	Juandah	..	..	..	..	Food and sanitary
20-22 May	..	..	..	Chinchilla	..	..	..	..	Food and sanitary
23 May	..	..	..	Jandowie	..	..	..	..	Food and sanitary
23-25 May	..	..	..	Tara	..	..	..	..	Food and sanitary
25-31 May	..	..	..	Dalby	..	..	..	..	Food and sanitary

## TOWNSVILLE.

In the city of Townsville and the district worked from that centre, Inspector Cato, in addition to his sanitary inspection duties, has visited 518 premises in which food and drugs are handled.

Outside of Townsville the following places have been visited by Inspector Cato on food work:—

1915.									
1 July	..	..	..	Ravenswood	..	..	..	..	Food inspection
19 August	..	..	..	Charters Towers	..	..	..	..	Food prosecution
1916.									
11-12 January	..	..	..	Brandon	..	..	..	..	Food and sanitary
13-17 January	..	..	..	Ayr	..	..	..	..	Food inspection
19-24 January	..	..	..	Mackay	..	..	..	..	Food and sanitary
25 January	..	..	..	Walkerston	..	..	..	..	Food and sanitary
26-27 January	..	..	..	Mirani	..	..	..	..	Food and sanitary
28 January	..	..	..	Finch Hatton	..	..	..	..	Food and sanitary
29 January	..	..	..	Netherdale	..	..	..	..	Food and sanitary
1 February	..	..	..	Eton	..	..	..	..	Food and sanitary
2-7 February	..	..	..	Mackay	..	..	..	..	Food and sanitary
8 February	..	..	..	Sarina	..	..	..	..	Food and sanitary
9-12 February	..	..	..	Mackay	..	..	..	..	Food and sanitary
14-17 February	..	..	..	Bowen	..	..	..	..	Food and sanitary
18 February	..	..	..	Ayr	..	..	..	..	Food inspection
2-10 March	..	..	..	Charters Towers	..	..	..	..	Food and sanitary
10-16 March	..	..	..	Queenton	..	..	..	..	Food and sanitary
17 March-8 April	..	..	..	Hughenden	..	..	..	..	Food and sanitary
30 May-4 June	..	..	..	Camooeal	..	..	..	..	Food and sanitary
16 June	..	..	..	Charters Towers	..	..	..	..	Food prosecutions



UNSOUND FOODS—TOWNSVILLE DISTRICTS.

During the period covered by the fiscal year Inspector Cato has rejected as unfit for consumption some 4 tons 14 cwt. of deteriorated food material, as per the following list:—

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Article.	Quantity.	Weight.			
			Tons	cwt.	qr.	lb.
1	Baking powder .. .. .	5 tins	0	0	0	1½
2	Barley, pearl .. .. .	1 parcel	0	0	1	0
3	Cocoa .. .. .	3 tins	0	0	0	0¾
4	Curry powder .. .. .	4 tins	0	0	0	2
5	Egg substitute .. .. .	1 tin	0	0	0	0¼
6	Fish, canned (assorted) .. .. .	1,846 tins	0	5	3	4
7	Fish, canned sardines (assorted) .. .. .	854 tins	0	2	1	22
8	Fish, canned salmon .. .. .	3 tins	0	0	0	3
9	Fish, canned (assorted) .. .. .	164 tins	0	1	1	12
10	Fruit, canned (assorted) .. .. .	49 tins	0	0	3	18
11	Fruit, dried (assorted) .. .. .	15 parcels	0	1	0	11½
12	Food, infants' .. .. .	145 tins	0	0	1	16½
13	Jams, assorted .. .. .	68 tins	0	1	0	24
14	Jelly crystals .. .. .	29 parcels	0	0	0	7½
15	Macaroni .. .. .	4 parcels	0	0	0	4
16	Meat .. .. .	6 tins	0	0	0	8
17	Milk, condensed .. .. .	96 tins	0	0	3	16
18	Oats .. .. .	21 parcels	0	0	2	0
19	Tea .. .. .	5 parcels	0	4	1	4
20	Vegetables .. .. .	41 parcels	3	15	0	0
21	Vegetables, canned .. .. .	1 tin	0	0	0	1
		TOTAL WEIGHT ..	4	14	1	15½

TOWNSVILLE DISTRICT PROSECUTIONS.

In the district under his supervision, Inspector Cato has instituted proceedings against forty-three persons and firms for offences against Part VI. of the Health Acts and for breaches of the Food and Drug Regulations.

In forty-one of these cases convictions were recorded and fines obtained. In one case (adulterated milk) a conviction was recorded, but no fine inflicted.

In one instance the case was dismissed, and in another the case was withdrawn because of defendant's departure for China.

The total penalties imposed amount to—fines £126 16s. 6d. and costs £61 5s. 2d.

The average penalty (all cases) was—fine £3 3s. 4d. and costs £1 10s. 7d. per case.

For milk adulteration offences, the average fine imposed was £5 11s. 6d. and costs £2 9s. 3d.

The highest fine inflicted was £20, and the lowest 2s. 6d. Three penalties of £10 are included in the list.

The most remarkable feature of the Northern milk prosecutions is, however, the miserably inadequate fines inflicted at Charters Towers, where four milk vendors, charged with selling

“milk” adulterated with added water in proportions ranging from 19 per cent. to 43·7 per cent., were let off with fines of 2s. 6d. in three instances and 5s. in the fourth case.

Six prosecutions for the sale of adulterated spirits were successfully conducted in the Northern Area during the year. The average fine inflicted was £1 16s. 8d. and costs £2 4s. 10d. per case.

Six bakers were proceeded against for the offence of selling lightweight bread, and a conviction obtained in each instance. The average fine imposed works out at £3 17s. 2d. and costs £1 1s. 11d. per case.

A prosecution against the vendor of an adulterated lemon squash resulted in a conviction, a penalty of £1 fine and £2 7s. 4d. costs being obtained.

Fifteen persons in the Northern Area, who were proceeded against for breaches of the Food and Drug Regulations, were mulcted in penalties totalling £22 0s. 10d.

The average fine inflicted for this class of offence works out at £1 and costs 9s. 3d. per case.

Five pounds was the highest and 1s. the lowest fine imposed for a breach of the Food and Drug Regulation 16 in the Northern Area.

PROSECUTIONS FOR ADULTERATION OF ALCOHOLIC LIQUORS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Class of Liquor.	Basis of Prosecution.	Fines.	Costs.
					£ s. d.	£ s. d.
	1915.					
1	18 September ..	Richmond ..	Whisky ..	Added water, 12·3 per cent.	2 0 0	4 17 11
2	18 September ..	Richmond ..	Rum ..	Added water, 35·4 per cent.	2 0 0	4 17 11
	1916.					
3	2 June ..	Ayr ..	Whisky ..	Added water .. .. .	1 0 0	1 4 6
4	7 June ..	Mackay ..	Whisky ..	Added water .. .. .	3 0 0	1 4 6
5	7 June ..	Mackay ..	Keg of whisky	Forfeited to the Crown	3 0 0	1 4 6
6	7 June ..	Mirani ..	Whisky ..	Added water .. .. .		
TOTALS .. ..					£11 0 0	£13 9 4



MISCELLANEOUS PROSECUTIONS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915.			£ s. d.	£ s. d.
1	19 August .. ..	Charters Towers ..	Bread, short weight .. ..	0 2 6	1 14 6
2	19 August .. ..	Charters Towers ..	Bread, short weight .. ..	0 2 6	1 14 6
3	2 November .. ..	Townsville .. ..	Adulterated lemon squash ..	1 0 0	2 7 4
	1916.				
4	31 May .. ..	Bowen .. ..	Bread, short weight .. ..	4 18 0	0 3 6
5	9 June .. ..	Sarina .. ..	Bread, short weight .. ..	3 0 0	0 3 6
6	16 June .. ..	Charters Towers ..	Bread, short weight .. ..	10 0 0	0 3 6
7	16 June .. ..	Charters Towers ..	Bread, short weight .. ..	5 0 0	2 12 4
			TOTALS .. ..	£24 3 0	£8 19 2

PROSECUTIONS FOR BREACHES OF SECTION 107 OF "THE HEALTH ACTS, 1900-1911," FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915.			£ s. d.	£ s. d.
1	19 October .. ..	Townsville .. ..	Obstruction .. ..	10 0 0	2 5 6

PROSECUTIONS FOR MILK ADULTERATION, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fine.	Costs.
	1915.			£ s. d.	£ s. d.
1	19 August .. ..	Charters Towers ..	Added water, 43·7 per cent. ..	0 2 6	1 14 6
2	19 August .. ..	Charters Towers ..	Added water, 24·5 per cent. ..	0 2 6	1 14 6
3	19 August .. ..	Charters Towers ..	Added water, 31·8 per cent. ..	0 5 0	1 14 6
4	19 August .. ..	Charters Towers ..	Added water, 19·0 per cent. ..	0 2 6	1 14 6
5	23 August .. ..	Hughenden .. ..	Added water, 63·6 per cent. ..	10 0 0	3 6 6
6	23 August .. ..	Hughenden .. ..	Added water, 24·5 per cent. ..	4 0 0	3 6 6
7	23 August .. ..	Hughenden .. ..	Added water, 17·6 per cent. ..	4 0 0	3 6 6
8	23 August .. ..	Hughenden .. ..	Added water, 38·2 per cent. ..	3 0 0	3 6 6
9	19 October .. ..	Townsville .. ..	Added water, 20·0 per cent. ..	10 0 0	2 5 6
10	19 October .. ..	Townsville .. ..	Added water, 27·0 per cent. ..	5 0 0	2 5 6
11	19 October .. ..	Townsville .. ..	Added water, 29·0 per cent. ..	Convicted but not fined	1 4 6
12	20 October .. ..	Townsville .. ..	Added water, 32·7 per cent. ..	Dismissed.	
13	22 October .. ..	Townsville .. ..	Added water, 46 per cent. ..	10 0 0	2 7 4
	1916.				
14	16 June .. ..	Charters Towers ..	Added water, 37 per cent. ..	20 0 0	1 4 6
			TOTALS .. ..	£66 12 6	£29 11 4

PROSECUTIONS FOR BREACHES OF FOOD AND DRUG REGULATIONS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915.			£ s. d.	£ s. d.
1	19 August .. ..	Charters Towers ..	Breach Regulations 18 (9) ..	0 2 6	1 14 6
2	19 August .. ..	Charters Towers ..	Breach Regulations 18 (9) ..	0 2 6	1 14 6
	1916.				
3	2 June .. ..	Ayr .. ..	Breach Regulations 16 (6) ..	5 0 0	0 3 6
4	7 June .. ..	Mackay .. ..	Breach Regulations 16 (3) ..	5 0 0	0 3 6
5	7 June .. ..	Mackay .. ..	Breach Regulations 16 (6) ..	2 0 0	0 3 6
6	16 June .. ..	Charters Towers ..	Breach Regulations 18 (9) ..	0 10 0	0 3 6
7	16 June .. ..	Charters Towers ..	Breach Regulations 18 (3) ..	0 1 0	0 3 6
8	16 June .. ..	Charters Towers ..	Breach Regulations 16 (6) ..	0 10 0	0 3 6
9	16 June .. ..	Charters Towers ..	Breach Regulations 16 (6) ..	0 10 0	0 3 6
10	16 June .. ..	Charters Towers ..	Breach Regulations 16 (7) ..	0 5 0	0 3 6
11	16 June .. ..	Charters Towers ..	Breach Regulations 16 (7) ..	0 5 0	0 3 6
12	16 June .. ..	Charters Towers ..	Breach Regulations 18 (4) ..	0 5 0	2 12 4
13	23 June .. ..	Townsville .. ..	Breach Regulations 16 (6) ..	0 5 0	0 3 6
14	23 June .. ..	Townsville .. ..	Breach Regulations 16 (6) ..	0 5 0	0 3 6
15	23 June .. ..	Townsville .. ..	Breach Regulations 16 (6) ..	Case withdrawn.	
			TOTALS .. ..	£15 1 0	£7 19 10

CAIRNS.

Operating from the Cairns Centre, Inspector Wright has energetically applied himself to the supervision of food supplies in the far North during the entire year.

In the twelve months, 618 premises handling stocks of food and drugs were visited and inspected by this officer, who in 126 instances served notices requiring improvements in the condition of establishments utilised for the



storage and preparation of foods for sale for human consumption.

As a result of Inspector Wright's efforts, 7 tons 3 cwt. of deteriorated foodstuffs were rejected as unfit, and satisfactorily disposed of.

Although these figures appear high at first sight, they will bear favourable comparison with

those for the first six months after the opening of the Cairns Office, during which period over 10 tons' weight of unsound foodstuffs were destroyed.

The following is a detailed list of the articles dealt with during the period under review:—

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Article.	Quantity.	Weight.			
			Tons	cwt.	qr.	lb.
1	Almonds .. .. .	1 parcel	0	0	0	9
2	Cordials .. .. .	4 parcels	0	2	2	13
3	Cheese .. .. .	68 jars	0	0	1	6
4	Chestnuts .. .. .	1 parcel	0	0	2	0
5	Currants .. .. .	9 cases	0	4	3	22
6	Dates .. .. .	222 parcels	0	1	3	26
7	Flour .. .. .	2 parcels.	0	0	1	9
8	Fruit, dried (assorted)..	50 parcels	0	2	3	2
9	Fish, canned (assorted)	700 tins	0	5	3	0
10	Fruit, canned (assorted)	304 tins	0	2	3	4
11	Fish, Ling .. .. .	1 parcel	0	0	0	13
12	Fruit, fresh .. .. .	146 cases	3	6	2	0
13	Jams, assorted .. .. .	193 tins	0	1	2	25
14	Macaroni .. .. .	105 packets	0	0	3	21
15	Nutmegs .. .. .	1 parcel	0	0	0	1
16	Milk, condensed .. .. .	82 tins	0	0	2	26
17	Meat, tinned .. .. .	20 tins	0	0	0	20
18	Pork, salted .. .. .	1 parcel	0	1	2	2
19	Pickles .. .. .	14 bottles	0	0	0	14
20	Potatoes .. .. .	38 bags	2	1	1	0
21	Raisins .. .. .	5 cases	0	2	3	27
22	Rice .. .. .	2 parcels	0	1	0	15
23	Rabbit, tinned .. .. .	88 tins	0	0	3	4
24	Sauce .. .. .	37 bottles	0	0	1	9
25	Vermicelli .. .. .	50 packets	0	0	1	22
26	Fruit, dried (assorted)..	24 parcels	0	1	3	27
		TOTAL WEIGHT ..	7	2	3	9

CAIRNS COUNTRY TOURS.

Outside of the town of Cairns itself, food inspection duties have been performed by Inspector Wright at the undermentioned places in the Cairns Area:—

Date.		Place.		Purpose of Inspection.
1915.				
2 July	.. .. .	Woree	.. .. .	Hotel inspection
2 July	.. .. .	Edmonton	.. .. .	Hotel inspection
4 August	.. .. .	Red Lynch	.. .. .	Food and sanitary
21 September	.. .. .	Gordonvale	.. .. .	Hotel inspection
29 September	.. .. .	Atherton	.. .. .	Ptomaine poisoning inquiry
29 September	.. .. .	Tolga	.. .. .	Food inspection
30 September	.. .. .	Atherton	.. .. .	Food inspection
5-6 October	.. .. .	Cooktown	.. .. .	Food and general
7-11 October	.. .. .	Mossman	.. .. .	Food and general
11-13 October	.. .. .	Port Douglas	.. .. .	Food and general
14-15 December	.. .. .	Atherton	.. .. .	Food inspection
1916.				
3-10 January	.. .. .	Malanda	.. .. .	Food and sanitary survey
10 January	.. .. .	Peeramon	.. .. .	Food and sanitary survey
11-13 January	.. .. .	Yungaburra	.. .. .	Food and sanitary survey
19-20 January	.. .. .	Cooktown	.. .. .	Food inspection
4-5 April	.. .. .	Mungana	.. .. .	Food and sanitary survey
6-9 April	.. .. .	Chillagoe	.. .. .	Food and sanitary survey
10-12 April	.. .. .	Mount Molloy	.. .. .	Food and sanitary survey
13 April	.. .. .	Almaden	.. .. .	Food and sanitary survey
14 April	.. .. .	Einisleigh	.. .. .	Food and sanitary survey
15-19 April	.. .. .	Irvinebank	.. .. .	Food and sanitary survey
20-22 April	.. .. .	Stannary Hills	.. .. .	Food and sanitary survey
24-25 May	.. .. .	Cardwell	.. .. .	Food and sanitary survey
26 May	.. .. .	Mourilyan	.. .. .	Hotel inspection
26-28 May	.. .. .	Ingham	.. .. .	Food and sanitary survey
29 May	.. .. .	Halifax	.. .. .	Food and sanitary survey
29 May	.. .. .	Lucinda Point	.. .. .	Food and general inspection

Bread weighing and liquor testing were performed in each town, and milk sampling whenever possible.



PROSECUTIONS—CAIRNS DISTRICT.

During the fiscal year twelve prosecutions have been successfully conducted by Inspector Wright in the Cairns Area against individuals and firms contravening the provisions of Part VI. of the Health Acts and of the Food and Drug Regulations.

The total penalties inflicted amount to £52 8s., made up of, fines £28 and costs £24 8s.

The average fine per case (all cases) amounts to £2 6s. 8d. and costs £2 0s. 8d.

One milk prosecution—against a Cooktown vendor—was responsible for the infliction of a fine of £5, with costs £2 5s. 6d.

Four liquor prosecutions brought in £12 in fines, and costs of £12 10s. Average fine, £3, and costs £3 2s. 6d., per case.

One adulterated meat case brought in a fine of £5, with costs £2 5s. 6d.

Six prosecutions against persons guilty of breaches of Food and Drug Regulation 16 resulted in a fine of £1, with costs £1 4s. 6d., being imposed in each instance.

Detailed lists of particulars follows :—

PROSECUTION FOR MILK ADULTERATION, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1916.			£ s. d.	£ s. d.
1	19 January .. ..	Cooktown .. ..	Added water, 9 per cent. ..	5 0 0	2 5 6

PROSECUTIONS FOR ADULTERATION OF ALCOHOLIC LIQUORS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Class of Liquor.	Basis of Prosecution.	Fines.	Costs.
	1915.				£ s. d.	£ s. d.
1	13 July .. ..	Double Island	Whisky ..	Added water .. ..	5 0 0	3 6 6
	30 July .. ..	Gordonvale ..	Brandy ..	Added water .. ..	5 0 0	3 6 6
	1916.					
4	19 January ..	Cooktown ..	Brandy ..	Added water .. ..	1 0 0	2 18 6
	19 January ..	Cooktown ..	Whisky ..	Added water .. ..	1 0 0	2 18 6
TOTALS .. ..					£12 0 0	£12 10 0

MISCELLANEOUS PROSECUTIONS, FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915.			£ s. d.	£ s. d.
1	15 December ..	Atherton .. ..	Adulterated meat .. ..	5 0 0	2 5 6
2	15 December ..	Atherton .. ..	Breach of Regulation 16 (1) ..	1 0 0	1 4 6
3	15 December ..	Atherton .. ..	Breach of Regulation 16 (1) ..	1 0 0	1 4 6
4	15 December ..	Atherton .. ..	Breach of Regulation 16 (5) ..	1 0 0	1 4 6
5	15 December ..	Atherton .. ..	Breach of Regulation 16 (5) ..	1 0 0	1 4 6
6	15 December ..	Atherton .. ..	Breach of Regulation 16 (3) ..	1 0 0	1 4 6
7	15 December ..	Atherton .. ..	Breach of Regulation 16 (7) ..	1 0 0	1 4 6
TOTALS .. ..				£11 0 0	£9 12 6

INSPECTION OF WHOLESALE WAREHOUSES.

As in previous years since the Food and Drug Regulations came into operation, in the exercise of efficient control over food supplies generally the officers of the Food Division have kept in close touch with merchants handling imported and other goods, and have paid particular attention to those lines which, from experience, they know to most frequently require observation in the hands of retail traders.

It obviously is more important to deal with such goods in bulk at the warehouses in the main distributing centres than to follow up small parcels in retail stores throughout the entire State.

Of course, the surveillance over warehouses does not mean that retailers require no attention, for, as a matter of fact, we find that foods de-

livered to them by merchants in the best of condition afterwards become deteriorated in a variety of ways, and it is essential, if such lines are to be prevented from going into consumption, that frequent visits of inspection shall be made to retail storekeepers' premises also.

The main supervision, however, has of necessity centred around the wholesalers' premises in the principal cities, and concerning these establishments it is gratifying to note from our inspectors' reports and the results of the year's work that vast improvements in the manufacturing, storing, and offering of foodstuffs for sale is evident.

In reviewing his operations for the year, Senior Inspector Beaver, the officer who has supervised warehouses in the Brisbane Metropolitan Area, speaks highly of the condition in which such businesses have been maintained in









HOTEL INSPECTION.—Unprotected kitchen windows opening on to yard—in close proximity to open earth-closets, urinal, and refuse-bins. Windows and doors ordered to be protected by means of fly-proof wire-gauze screens.



HOTEL INSPECTION.—Rear portion of premises which adjoins closets and urinal safeguarded by means of outer wire-gauze screening and self-closing wire doors. Kitchen, pantry, and offices entirely protected by this means.



his particular section, and records the continuance during this period of those harmonious relations between the officers of the Department and merchants and traders generally which have existed in previous years.

Senior Inspector Beaver expresses the opinion that improvements which have occurred are largely due to the good understanding which exists between business folks and the food inspectors, as advice has frequently been applied for by the former and freely furnished by the latter.

A suggestion made respecting structural improvements is promptly acted upon, and advice tendered in connection with the packing and handling of foods speedily becomes a rule of the establishments.

The statement, therefore, in the Commissioner's Annual Report for 1914 (folio 9), to the effect that "the food inspector is now regarded by traders in the light of a business friend who will willingly post them up with information and give any advice that may be desired," has become an established fact.

Senior Inspector Beaver quotes one instance of an occasion when he was operating in a country town where he was waited upon by a certain food manufacturer who was greatly concerned at the prospect of the inspector's reported departure from the town without having visited his premises.

To use the man's own words, "We so seldom receive a visit from a food inspector that, although we endeavour to comply with the Acts, we do not get the advice and information which is so readily accessible to our city brothers."

From Central and North Queensland the same note is sounded, and there appears to be a distinct upward trend in the same connection from these quarters as well.

The decline in the records of food products condemned as unsound during the fiscal year supports these contentions.

#### HOTELS.

Licensed victuallers' premises in the Southern, Central, and Northern portions of the State have received careful attention by the Department's officers during the entire year.

At Rockhampton, Townsville, and Cairns the work has been handled by the inspectors stationed at these centres in conjunction with their routine duties under the Health Acts, while in the Southern country districts the Department's food inspectors have attended to such premises together with other businesses in which the handling of foods is concerned.

In the Brisbane Metropolitan Area liquor inspection duties have been attended to by an officer employed solely on the work, and Inspector Plumb, the officer who has been entrusted with the supervision of the liquor traffic in this section of the State, has given the work his undivided attention.

During the fiscal year 868 visits of inspection have been paid to hotels in the Brisbane Metropolitan Area, 362 to hotels in country towns in the Southern Districts, 175 to hotels in the Central Queensland Area, and 233 to hotels in North Queensland.

The officers concerned have tested spirits at the hotels visited, scrutinised labelling condi-

tions, examined beer-drawing apparatus, inquired into sources of water supplies, inspected kitchen arrangements and facilities provided for the storage of foods intended for the use of guests.

On the whole, considerable improvement has been observed both in the quality of the spirits vended and in the precautions taken to protect foods from contamination.

Upon reinspection very few indeed of the licensed victuallers who had been previously instructed to discontinue the use of pipes made wholly or in part of lead for drawing beer were found who had not entirely replaced such conduits with pipes made of block tin or brewer's hose of approved material.

What defects were found to exist in this direction consisted for the most part of small sections of lead pipes left in the top junction by plumbers who thought the small piece "did not matter." Upon representations being made to the responsible parties, such defects were invariably immediately corrected.

Hotel kitchens are in much better condition now than formerly, and in many premises window and door openings have been effectively screened against flies by means of wire gauze of approved material.

In the Brisbane and South Brisbane City Areas the protection of kitchens by this means has advanced considerably during the period under review.

Inspector Plumb has paid particular attention to this feature of hotel hygiene as well as to the provision by licenses of adequate glass-washing facilities in all hotel bars.

Hotels manufacturing their own aerated beverages have been subjected to the conditions imposed upon aerated water and cordial makers generally, and have been required to provide suitable premises, approved filters, and means for washing and rinsing bottles, &c.

A number of hotel-keepers recently have adopted various designs of "bar dispensers" of aerated beverages, and these, where observed, have been found to be conducted in a sanitary manner and to be using syrups of good quality.

Upon occasions evidence of the refilling of proprietary spirits bottles with other contents has been observed by the Department's officers, but a strong caution usually has had the desired effect. Offences of this description are difficult to "sheet home" to the responsible party, and with the increase in the price of spirits the temptation to sophisticate is considerable.

#### BACTERIOLOGICAL EXAMINATIONS.

In addition to the samples submitted to the Government Chemical Laboratory for analysis, 78 specimens of various foods have been forwarded by the officers of the Food Division to the Director of the Bacteriological Institute for examination and report.

These specimens have consisted principally of milk and cream, ice-cream and ices, fish, meat, and specimens of different kinds procured for investigation connected with alleged ptomaine poisoning cases, &c.

The information obtained by this means has been of extreme value, particularly in the direction of ice-cream and ices, in the manufacture



of which I propose to show at a later stage how defective conditions were remedied by the knowledge supplied by the bacteriologists' certificates.

Besides the work of food examination, the Director of the Bacteriological Institute has conducted tests of filters and filtering apparatus which have been submitted by manufacturers and their representatives to the Department for approval.

The law requires that only those filters which have been approved by the Commissioner of Health shall be employed in the treatment of water used in the manufacture or preparation for sale of aerated beverages and cordials, and only those appliances which have passed the prescribed tests at the hands of the Director of the Bacteriological Institute are accepted by the Department.

#### ICE-CREAM AND ICES FACTORIES.

During the summer season of the year under review, the Department's inspectors at their respective centres, and officers on tour, have endeavoured to secure compliance with the provision of those clauses of the Food and Drug Regulations providing for the cleanliness and freedom from contamination of ice-cream and ices.

In country towns whilst on tour, owing to shortness of time at their disposal and the amount of other food work to be got through, it has not been possible for inspectors to pay more than casual attention to the subject, and beyond insisting upon the provision of a suitable room in which to manufacture the dainty, and of proper utensils and apparatus, they have not been in a position to proceed further and enter into the actual details of the various processes involved in the preparation of these readily contaminable articles of food.

Moreover, in the absence of laboratory facilities it would not have been possible for officers operating in country districts to have forwarded specimens to Brisbane so as to arrive in a condition fit for handling by the bacteriologist.

In the Brisbane Metropolitan Area, however, the food inspectors have been in a position to devote some little time to the subject, and as a result considerable improvement has been effected in the quality of such foods.

During the season 55 specimens of ice-cream and ices were submitted to the Director of the Bacteriological Institute.

Dr. Harris's reports upon the first 30 specimens (assorted ice-cream and ices) disclosed that of the total number seven samples only were within the limits of the bacterial standard prescribed in the Food and Drug Regulations, viz.:—"Not more than 50,000 micro-organisms to the cubic centimetre" for ice-cream and ices.

The following are the bacterial counts of the seven specimens that satisfied requirements:—

No. 1—	Ices	..	3,000	micro-organisms	per c.c.
2—	"	..	33,000	"	"
3—	"	..	2,000	"	"
4—	"	..	1,000	"	"
5—	"	..	6,000	"	"
6—	"	..	30,000	"	"
7—	Ice-cream		1,000	"	"

In connection with these figures it is worthy of note that 6 of the 7 samples were ices and only 1 an ice-cream.

Ices, in the ordinary course, being manufactured from sterile—or almost sterile—materials should, if proper precautions are observed during their preparation, furnish a low bacterial count, while ice-cream, on the other hand, is not so likely to return a low count, owing to the original bacterial content of the cream used often being high, and thus upsetting the calculations of even the most careful and conscientious maker.

In the case of No. 7 specimen above recorded the manufacturers of same were given notice of the Department's intention to obtain a specimen of their ice-cream for examination, as a result of which notification extraordinary precautions were observed by them upon this occasion in the preparation of the product.

Apparatus and utensils were sterilised in boiling water previous to use, and the custard when mixed was pasteurised at a temperature of 185 degrees F. for twenty minutes, and whilst hot was transferred direct to the freezer.

Dr. Harris's certificate upon a specimen removed from this mixing disclosed a bacterial count of less than 1,000 per c.c. after incubation at 37 degrees C. for twenty-four and forty-eight hours respectively, a result which is very gratifying, particularly when it is borne in mind that the manager of the firm concerned had previously ridiculed the idea of it being possible under any circumstances to produce an article that would yield a count so low as 50,000 micro-organisms per c.c.

The remaining twenty-three specimens reported upon at this stage all furnished returns above the maximum prescribed limit, the figures ranging from 134,000 per c.c. to 9,450,000 per c.c.

Results of excessive counts were communicated to manufacturers, the inspector at the same time informing them of their position and requesting improvement.

Upon subsequent visits being paid to their establishments, specimens were obtained from a number of these makers, which, upon examination, showed a marked reduction in bacterial content as the result of the extra precautions observed and advice followed.

A case worthy of special mention is that of one manufacturer from whose factory the first sample obtained furnished a bacterial count of 200,000 per c.c.

Upon representations being made, the management immediately discontinued the use of the place originally used for the purpose, and provided a new ice-cream room, equipped in a satisfactory manner.

A specimen of ice-cream prepared under these improved conditions furnished a count of under 1,000 micro-organisms per c.c. at twenty-four and forty-eight hours respectively.

Certain makers whose counts were high upon the first occasion of sampling made serious attempts to effect improvement, whilst others again were not disposed to treat the matter seriously. The former had the pleasure of obtaining vastly improved figures, whilst the latter either went up or remained at or about the original high mark.





TRACED TO ITS LAIR.—The home of an ice-cream barrow which was run in connection with factory, a photo. of which appears below.



Entrance to an underground ice-cream factory which was condemned by the Department on account of its insanitary position and surroundings. An excessive bacterial count was obtained from ice-cream made at this establishment.



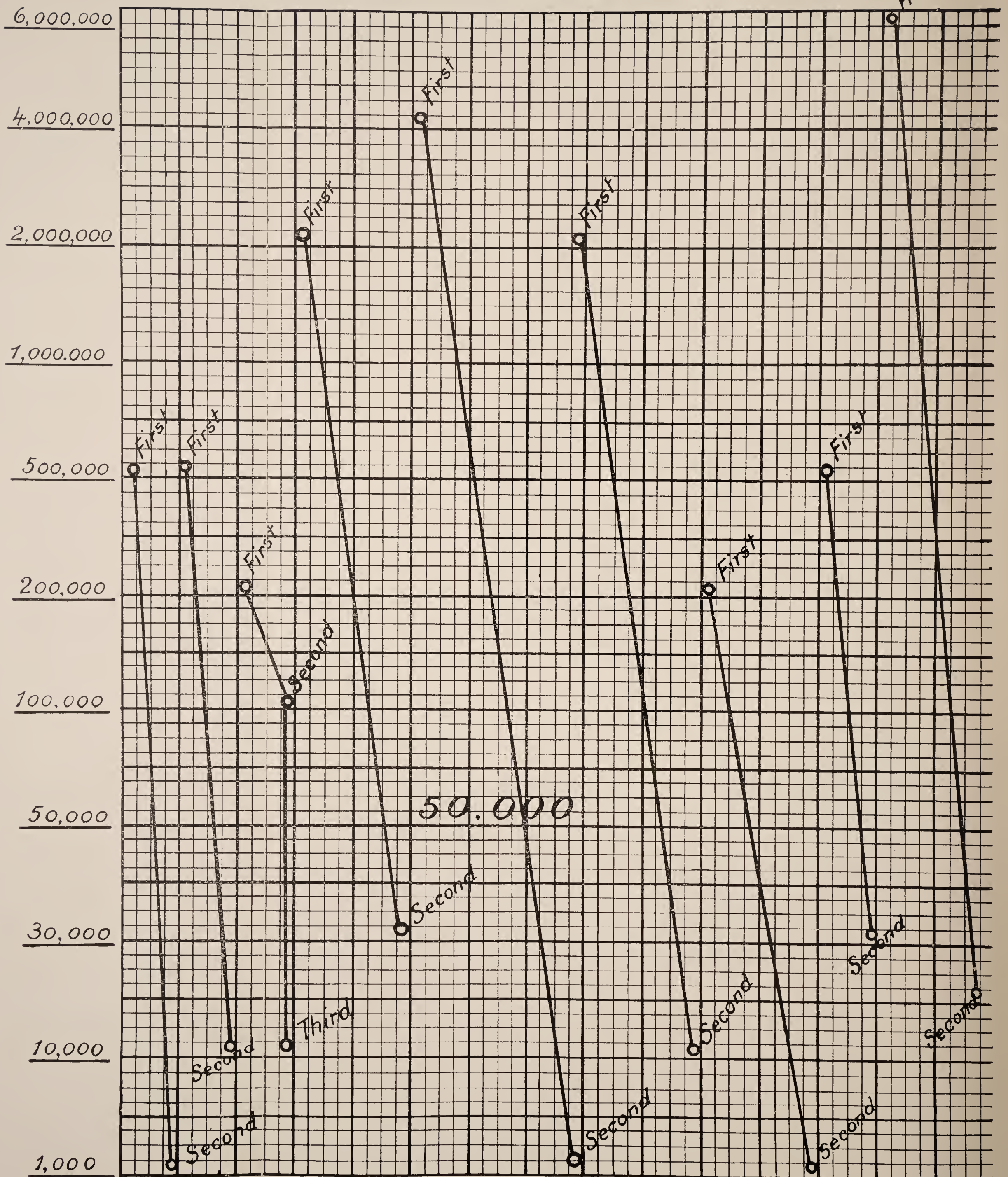








Bacterial counts ice-cream & ices  
first & second specimens from same makers





A few well-directed prosecutions of certain makers who were discovered handling ice-cream and ices in such a manner as to expose same to contamination had the effect of making these individuals realise that the Department was in earnest, and was the means of inducing certain operators to exercise care in the matter of hygiene of person and premises.

The keepers of two factories which were so unfortunately located as to render the issue of a sanitary ice-cream therefrom impossible, were required to vacate the premises, and a number of other makers were compelled either to put their factories in order or discontinue the business.

One manufacturer who was utilising a cellar basement was induced to transfer his plant to a well-lighted and airy situation above ground. A considerable number of persons who proposed entering afresh into the trade submitted premises for the approval of the Department before making a start, and the majority of these were refused because the premises failed to satisfy requirements.

No sensational use was made of bacterial results obtained, and the information secured by this means was utilised solely for the purpose of bringing about improved conditions in methods followed and places used in connection with the ice-cream industry.

The attached chart facing next page will show how attention to essential details in many instances was followed by immediate good results, and it is only fair to add that the parties concerned appear to appreciate that it is quite possible to produce ices having a low bacterial count if only they adopt the necessary precautions and are determined to continue their efforts in such direction.

Manufacturers generally evince interest in the bacteriological findings, and it is anticipated in the coming season that the work will be continued with equally satisfactory results.

Ten out of twelve samples of ice-cream and ices analysed by the Government Analyst were reported up to standard, and two samples failed because of the presence therein of starch. The butter fat values of all ice-creams examined were high, and chemical analysis showed the various materials used in the manufacture of both ice-cream and ices to be of good quality.

#### BAKEHOUSES.

Bakehouses in both town and country areas have received their fair share of attention by the Department's officers during the year, and concerning them there is very little fresh to report. At a number of such places alterations and improvements of a minor character have been effected, but at many others in which structural alterations are required, and would under normal conditions have been performed, the stress of the war pinch and bad times have prevented the owners from carrying out the necessary work.

Bread weighing has been conducted at bakeries in the various quarters of the State, and proceedings have been instituted against the responsible parties when deficiencies have been observed.

In the Brisbane Metropolitan Area, during the summer months of the fiscal year, several bakehouses were visited by the affection known as "ropy bread."

In this condition—which has brought ruin to many bakers in various parts of the world—the bread, usually the crumb in the centre of the loaf, is slimy and foul-smelling, and repulsive to the taste.

When the disease once gets a footing in a bakehouse it is, as a rule, an exceedingly hard matter to get rid of it, and it is the cause of much worry and loss.

Senior Inspector Stewart managed in a couple of instances to overcome the enemy by directing efficient fumigation of the bakehouses concerned, and by disinfection and cleansing of troughs, benches, and yeast tubs.

It was, also, in one instance found necessary to have the flooring boards removed and cleansed and several inches of soil excavated in order to permit of a free current of air being secured.

Before replacing the flooring boards the new earth surface was saturated with a disinfectant solution.

Senior Inspector Stewart records that one baker attempted to get rid of the trouble by spraying his bakehouse with formalin, but omitted to close up the openings in walls and ceilings.

In spite of the faulty nature of the "disinfection," this baker's bread during the whole of the succeeding week was free from "rope," after which time the affection made its reappearance.

A further disinfection (sulphur fumigation) was thereupon carried out under approved conditions under the direction of Senior Inspector Stewart, with the result that bread made in the bakehouse has not since been affected.

In his report upon the matter, Senior Inspector Stewart states that it is doubtful whether its disappearance is due to this later fumigation or to natural causes, as it is stated to have ceased on the day preceding the one upon which the second fumigation of the bakehouse was performed.

This statement was, however, based upon the fact that no complaints were received from customers on the day preceding the fumigation, but as, on the other hand, it was also ascertained that even prior to the first treatment of the premises occasional days elapsed without complaints being made, it is exceedingly likely that the second disinfection was effectual.

Concerning the weight of bread, Senior Inspector Stewart reports that he has in the course of his journeys through the State come across a number of bakers who have believed they had discovered a means of producing a 2-lb. loaf of bread from dough scaled off at from 2 lb. 3 oz. to 2 lb. 3½ oz., in place of the 2 lb. 4 oz. decided upon by the Master Bakers' Association of Brisbane and District.

One baker imagined he had solved the problem by employing a special build of oven, but was disillusioned by an officer of the Department weighing his loaves.

Another baker appeared astounded when the same officer pointed out to him that, after allowing for the unjustness of his scales and for



faulty weights used, he was actually putting 2 lb. 4 oz. of dough into the 2-lb. loaf of bread.

Numerous instances can be cited which prove the wisdom of sealing off dough at 2 lb. 4 oz. to the 2-lb. loaf, if the party concerned is desirous of steering clear of the police court.

In the matter of the carriage and delivery of bread to customers, more care is now exercised by bakers and carters, and it is the rule for cart and basket covers to be provided by masters.

Where these are not employed, it is usually the man's fault, and in such instances he is the person held responsible for the neglect. In the wrapping of bread, the prohibition against the use of newspaper has had to be relaxed for the time being owing to existing shortage of white paper stocks caused by war conditions. It is, however, insisted that the paper used shall be clean.

#### MILK INSPECTION.

With a reduced staff, and additional duties during certain portions of the year, it has not been possible to bestow so much attention upon milk vendors this year as formerly, but nevertheless a fairly constant supervision has been exercised over a certain section of the trade, the methods of which leave its members open to suspicion.

It was anticipated, when the new "Milk Sellers' Regulations" were gazetted in the early portion of 1916, that the general public would benefit from their operation, but by reason of it being alleged, almost immediately after the issue of the *Gazette* copy, that certain of the clauses therein contained conflicted with Regulations and Acts administered by another Government Department, the operation of the "Milk Sellers' Regulations, 1916," was suspended for the time being, in order to permit of some arrangement being made between the Departments concerned.

Section 96 of "*The Health Acts, 1900-1911*," which prohibits the carriage of water upon a milk cart, was, however, put into force in the Brisbane Metropolitan Area, and the enforcement of this provision is likely to prove the first important step in the direction of discouraging milk sophisticators.

Already it has had a marked effect in reducing malpractices by milkmen, and some half-dozen vendors, who have persisted in carrying water upon their carts, have been prosecuted and fined in substantial amounts by the police magistrates, in spite of their protestations that their sense of cleanliness compelled them to carry a utensil of water in which to rinse milk measures, &c.

The second link in the chain of the pure milk crusade will be forged when the Regulations compelling milk sellers to obtain a license and register their premises before trading, and enabling the Commissioner to cancel the licenses of milk sellers found guilty of misconduct, are given effect and put into operation.

Half-measures are not of the slightest use, and men of the description of those who persist in the practice of milk adulteration after repeated high fines can be dealt with satisfactorily in only one or other of two ways, viz.:—Either by putting them in gaol or out of the milk business entirely.

Of the two methods, the latter is likely to be the more effective, and the sooner the Department is in a position to so deal with the professional milk adulterator the better for the public, particularly the infant portion of it, which is dependent on the precious fluid for its very existence.

During the twelve months milk sampling has been performed in the streets, at railway stations, and in shops, in the early morning and afternoon of week-days, Sundays, and public holidays.

The work has been carried out on foot, by trap, and per motor-car, and much ground has been covered in the operation.

Besides prosecutions for adulteration, a number of milkmen have been proceeded against for deliberate obstruction of inspectors, refusing to supply a sample on demand, using rag to close can-lids, having dirty and dilapidated cans and measures, and for exposing the contents of milk cans to contamination by flies and dust.

#### REFRESHMENT-ROOMS AND RESTAURANTS.

In spite of war conditions, drought, and other troubles, there has been a distinct advance throughout in the conduct and appearance of establishments classed under above headings. Improvements have, I am pleased to say, not been confined to shop fronts, which, however attractive they may be made to appear, are, if they cover dirty back premises or an insanitary kitchen, merely a "whited sepulchre," so to speak.

Whenever a whisper of contemplated alterations to such premises has reached the ears of the officers of this Department, they have called upon the owner or lessee and urged upon him the desirability of including the kitchen in the scheme.

As a result of this policy, a number of new restaurant and refreshment-room kitchens have been constructed upon correct lines, and others have been so fitted as to make it possible to handle foods therein in a safe and cleanly manner.

The existence of pan services of nightsoil removal throughout the State, and the undesirable proximity of closets to kitchens in the majority of instances, makes it particularly necessary that special precautions shall be adopted in these places to safeguard all foods during the course of preparation.

It is required, also, that foods—cooked and otherwise—exhibited in the shop itself, shall be protected during storage, and in order to achieve this end, where it has not been found possible to effectively safeguard such articles in the window or upon the counter, provision has, in a number of instances, been made to protect the shop and contents by means of double-hinged swing doors affixed to the entrance.

Other matters that call for constant attention in premises of this description are the quality and condition of foods handled, methods adopted for storing same, condition of safes, ice-chests, and the state of cooking utensils, crockery, and silver.

#### DRUGS.

For the purposes of the Health Acts, the word "drug" means "any article used for or in the composition or preparation of medicine for





Milk cans and measures and hygienic milk taps. The former protected by covers and the latter having plugs cut out of solid metal—capable of ready removal for cleansing purposes. Old type open measure and can in foreground.







internal or external consumption or use by man. The term includes disinfectants, germicides, antiseptics, preservatives, deodorants, anaesthetics, tobacco, narcotics, soaps, cosmetics, dusting powders, essences, unguents, and all other toilet articles."

Dissection of this interpretation will show that considerable scope is afforded the Department in the exercise of control over a wide range of articles.

Although all have not been touched upon during the past year, a considerable number of the lines mentioned have come before its officers for consideration in some form or other.

As in the year previous, the Department's work has brought it into contact principally with the wholesale drug warehouses, although a number of retail chemists have also been visited.

A number of samples of germicides and disinfectants have passed through the Department's hands, principally in connection with labelling, and others have been subjected to chemical and biological tests.

Tobacco is a line with which we have had a good deal to do in the period under review, also principally in connection with labelling, though the Department has upon occasions been called upon to take action in the case of deteriorated and insect-infested lines of tobacco, cigars, and cigarettes offered for sale.

Soaps, cosmetics, unguents, and other toilet articles have also called for a considerable amount of attention, in which connection it was found necessary to pay a round of visits to departmental stores, tobacconists' and hairdressing saloons, as well as wholesale warehouses supplying such goods, for the purpose of correcting labelling conditions.

These inspections were the means of bringing a lot of ancient stock to light which had become perished and worthless through long keeping, besides a number of other preparations devoid of proper descriptions or obviously grossly mislabelled.

Owners displayed no hesitation in disposing satisfactorily of the former and in either removing from sale or correcting the latter upon their attention being directed to defects.

A series of unofficial samples was obtained of various drugs, included in which were epsom salts, castor-oil pills, liquid paraffin, eucalyptus oil, aspirin, medicated wines, nursery pomades, cough syrups, infants' foods, toilet soaps and preparations, soothing syrups, hair dyes, proprietary medicines, &c., &c.

In connection with certain points raised, the Department entered into correspondence with the Pharmaceutical Society, to which body and its courteous secretary, Mr. Cowley, it is indebted for prompt attention and ready co-operation in matters which have concerned the welfare of the society's members and of the general public.

#### CHEMICAL PRESERVATIVES IN FOODS.

With the advent of Pure Food Acts and Food and Drug Regulations, the practice, which at one time was only too common, of doctoring up food material of every description with antiseptic substances of all kinds, and frequently with more than one chemical preservative, has happily become a thing of the past.

The public very properly objected to being indiscriminately physicked in its food—in health and in sickness—by persons not qualified to administer medicine, with the result that regulations have been framed, and it has been decided by competent scientific experts what preservative substances may be safely employed in certain foods, and in what proportion such substances may be used in their preparation.

At the outset, in Queensland, it was found that certain food manufacturers and packers were not exercising sufficient care in the addition of the permitted preservatives to products, but since then they have been educated into realising the importance of keeping within the prescribed limits.

One section of the trading community was, however, tardy in accommodating itself to altered circumstances, with the result that the Department was compelled to institute police court proceedings against a number of its members as a warning to others.

The trade referred to is the butchery, which was cautioned by means of circulars issued to all members of the Queensland Meat Traders' Association last year *re* the practice of adding excessive amounts of sulphur dioxide, and preparations of sulphur dioxide, to mincemeat and sausage-meat.

Notwithstanding this warning, it was found upon certain samples of such meat products being analysed recently that a number of town and country butchers were using SO<sub>2</sub> in amounts ranging from 40 per cent. to 520 per cent. in excess of the proportion permitted by the Regulations to be present in mince and sausage meats.

Twelve butchers in Brisbane, Gladstone, and Maryborough districts were prosecuted for this offence, and all were convicted and fined in substantial amounts.

In other lines of business the Department has had little to complain of in this connection, and food packers generally appear to have confined themselves to the use of permitted preservatives only, and to have been keeping well within limits in their application.

One line of food product which was preserved with a substance which is not included in the official list came on to the local market through inadvertence, but was quickly removed upon representations being made in the right quarter.

In the early part of the year it was found that certain lines of dried fish imported from the United States of America had been treated with a preservative dusting of boric acid.

Exception was taken to this practice, and upon the Department's objections being communicated to the packers, the method was abandoned and the use of chemical preservatives for such purpose discontinued.

#### GENERAL STORES.

General stores in town and country areas visited this year have been found on the whole cleanly and tidily kept, and with stocks in fair condition.

In certain instances where stocks have been noted ill-kept, it has been ascertained that shortage of labour owing to war conditions has been largely responsible, and due allowance has been made.



The majority of storekeepers now appear to realise the importance of keeping foods which are ordinarily consumed in the state in which they are sold protected from contamination by flies and dust, and a number have provided special cabinets and covering devices for the purpose.

In the early part of the year a tendency was observed upon the part of certain grocers to substitute other and cheaper substances for cream of tartar when the latter article was demanded by purchasers.

Proceedings instituted successfully against three offenders in town and country centres had the desired effect of discouraging a continuance of the practice.

A feature of the officers' work in stores has been the check weighing of packed goods, such as tea, butter, sugar, &c., &c.

Made-up packages on grocers' carts during course of delivery have also at times been overhauled and placed on the official scales.

Stocks of cereals, dried fruits, spices, &c., have been found in cleaner condition this year than last, and canned goods—fish of various sorts, and sardines in particular—have been of better quality and in better order all round.

Unofficial samples of various food products have been removed for analysis and information whenever deemed advisable, and special attention has been given to a number of new products from Canada and Japan which have recently entered upon the local market.

In discussing results of a recent tour through a considerable number of stores in country districts, one of the Department's inspectors states: "Improvement generally is observable, and it now appears to be impossible to find a sufficient quantity of deteriorated goods in any one store to fill a dray, which, although it may sound an exaggeration, was nevertheless possible at many stores during the twelve months immediately following on the coming into operation of the Food and Drug Regulations in Queensland."

#### AERATED WATER AND CORDIAL FACTORIES.

Aerated water and cordial factories have been kept under regular supervision in the period under review, special attention being paid to sources and conditions of water supplies, filtration of water, bottle washing and cleansing, materials used, preservative substances employed, manufacture and storage of syrups and cordials, &c., &c., and, last but not least, the labelling conditions obtaining. Premises running "soda fountains," and hotels working their own beverage factories and counter carbonating and dispensing plants, have also received the like attention.

Although it is evident that much improvement in the labelling and general get-up of aerated beverages and cordials has occurred during the past two years, it is still found that a considerable number of persons in the trade fail to realise the importance of filtration of water used in the manufacture of their drinks and of the apparatus employed in the preliminary treatment of such water.

Commenting upon this phase of the aerated water question, Senior Inspector Stewart states

that the proprietors of soda fountains are the persons most frequently found offending.

He says that in many instances it is difficult to discover whether the faulty condition of filters met with in these appliances are due to the owner's absolute ignorance of the nature and uses of filters or are caused by wilful design.

Some of the defects encountered by Senior Inspector Stewart during the year were:—

- (a) No filter candles in the filter case.
- (b) Candles not screwed in sufficiently tight to the plate.
- (c) One or more candles in the case broken.
- (d) Broken candles patched up with Portland cement, or tied up with bandages, or outlet aperture faultily plugged.

In many instances it has been found that "filters" which have been in use for twelve months and over have never been opened or cleaned from the time they were installed by the fitter until opened by an officer of this Department.

In every such case it has been found that the candles were either broken by the extra pressure from the pump, due to accumulation of matter on the candles, or had become unscrewed—probably by vibration—and were lying in the bottom of the filter case.

In each one of the conditions above cited, unfiltered water was passed into the carbonator.

It is regrettable that a large percentage even of those users of filters who understand that the candles must be brushed and washed regularly, if the bougies are to permit a free flow of water, fail to realise that the filtering medium also requires periodical sterilisation if the growth of bacteria through the walls of the candle is to be prevented.

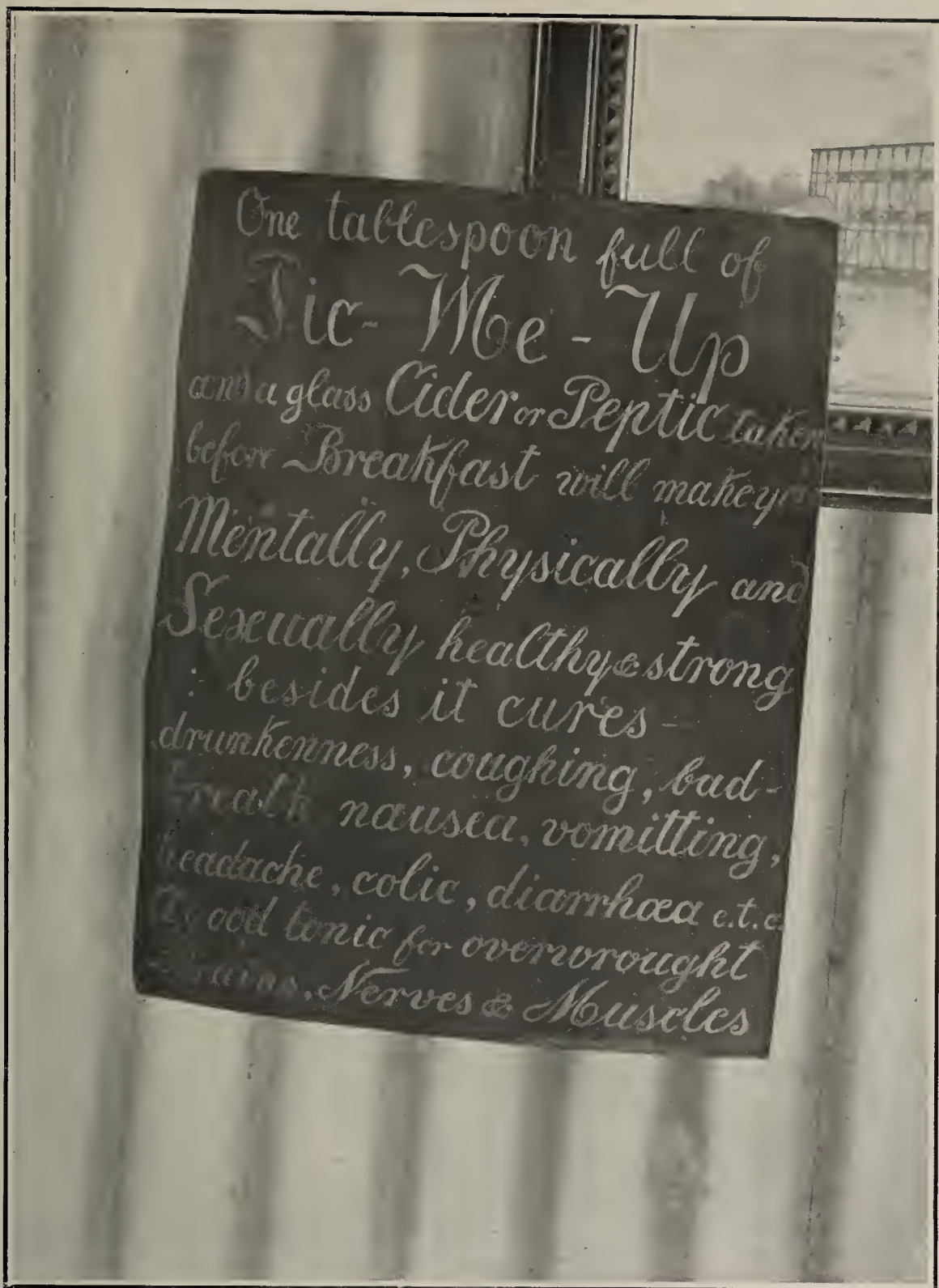
From what the Department's officers see and hear, however, it would appear that a very considerable proportion of those persons using filtering appliances in their business processes have but an elementary notion of their functions, and consider the medium merely as a means of removing mud and suspended matter from the water.

It has been the constant endeavour of the food inspectors in the course of their visitations to impress upon such individuals the fact that the prime function of a filter is to prevent the passage of micro-organisms present in the water through the filtering medium, and that, if they wish to maintain the filter candles in a state of efficient action, they must cleanse them at frequent intervals, in order to prevent the multiplication of organisms upon their surfaces, a condition which largely influences the rate of growth through the candles, and that it is absolutely essential that the candles every few days shall be sterilised by exposing them to steam or by boiling them.

Occasionally persons are found who do systematically sterilise their filter candles, but the too-frequent practice is to continue their use without treatment until they become broken, irrespective of the fact that they are overloaded with the bacteria they are intended to remove.

The gospel of having a second set of candles to each filter case is being preached, so that the





A quaint advertising board which at one time appeared on the outside of a "soft drink" shop. Exception taken to claims. Board removed.

## T. and F's.

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The store where to buy high-class groceries at lowest possible cost.

We do not buy old stock, and then have to reduce the prices to get rid of it. All our goods are fresh, and are not exposed to wind, dust, etc.

The Government Health Inspector has complimented us on our up-to-date method of protecting our Foodstuffs, and the cleanliness and general sanitation of the premises.

If good service, fresh goods, and low prices ever pull trade then it must be to this Store.

Cutting from the columns of a country newspaper serving to show the respect in which the Food and Drug Regulations are held by traders, as well as their appreciation of the opinion of the Department's officers on their methods.





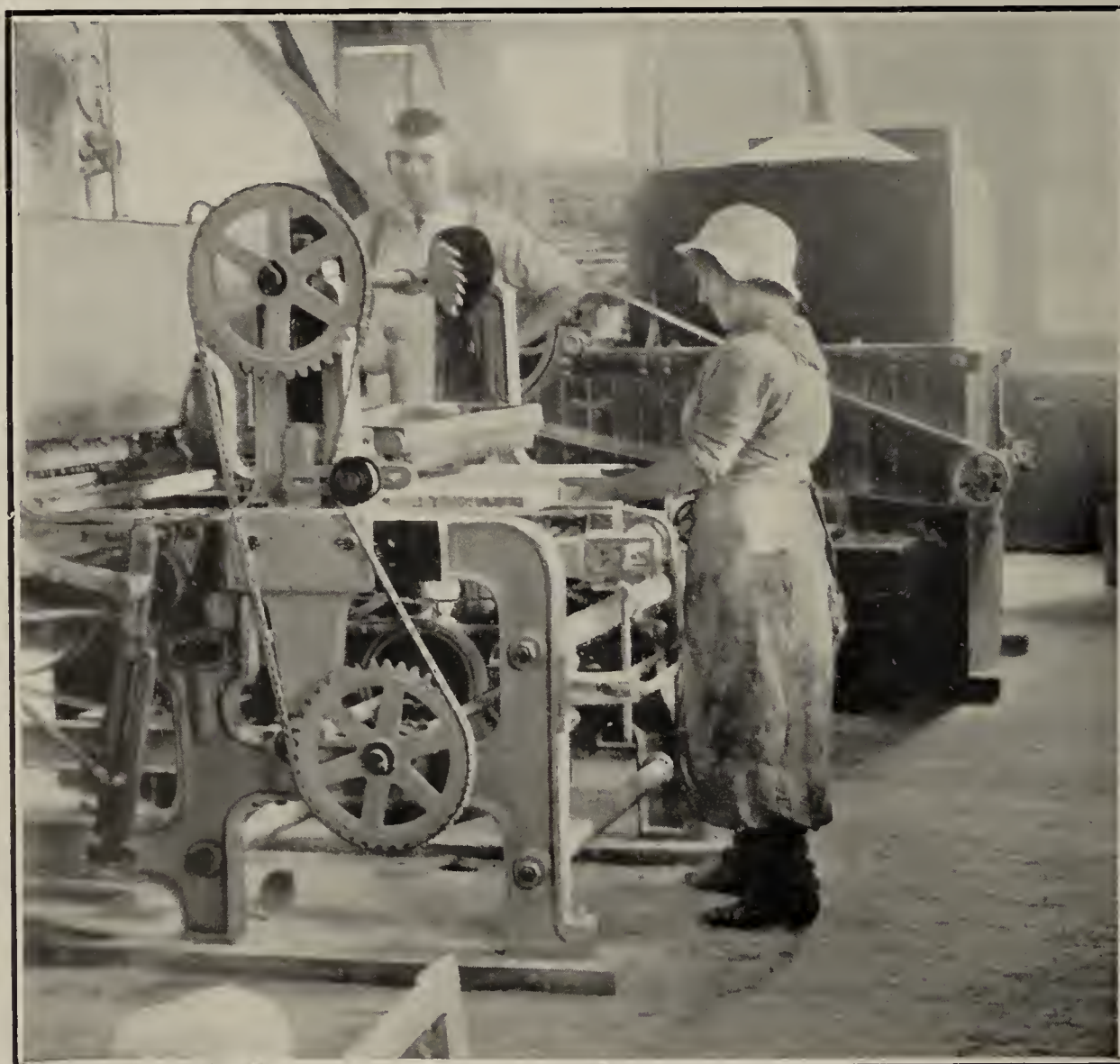








CONFECTIONERY MAKING.—Moulding jelly goods by hand—an old-time method of preparing confectionery.



CONFECTIONERY MAKING.—The same class of goods prepared by machinery. No handling. Provision made for storage and cleansing of starch in apparatus at rear.



set removed for cleansing may be immediately replaced by the sterilised series, and that the candles removed may receive the benefit of the rays of the Queensland sun after being treated and before again being screwed into the casing.

Four cordial manufacturers were, during the year, prosecuted for selling compound sarsaparilla cordials which, upon analysis, were found to be adulterated with iodide, which drug was present in the specimens examined in proportions ranging from 7 to 14.5 grains per pint (calculated as potassium iodide). A conviction was obtained in each instance and a fine inflicted.

#### FOOD POISONING.

Several cases of illness alleged to be due to the consumption of unsound foods of various descriptions came under the Department's notice during the year, and were investigated by its officers.

In the majority of instances the attention of the Department was directed to such happenings by paragraphs appearing in the papers, and in a few cases information was received from the police authorities.

The first intimation from this source was in connection with an outbreak at Atherton, in September, 1915, when fifteen persons were admitted to hospital at that town suffering from ptomaine poisoning, some few persons after having partaken of sandwiches obtained from a booth on the local racecourse.

Inspector Wright, who investigated the case, exonerated the actual vendor from blame, and pursued his inquiries to the premises of a firm of butchers at a neighbouring town from whence the ox tongue and corned beef, of which the sandwiches were composed, had been obtained.

Here our officer found an ox tongue and a quantity of corned beef in a decomposed condition, whilst the man who was in attendance was uncleanly in his person and clothing.

The cart in which the meat had been delivered to the lady who made the sandwiches was next examined, and found in an unsatisfactory state and with two boxes in it (used for conveying salted meat) in a filthy condition.

Official samples were obtained and proceedings afterwards taken against the vendor for the sale of adulterated meat, and against the firm for unclean premises, and the assistant for having unclean clothing. The police magistrate convicted on each charge and imposed fines and costs amounting to £16 3s. 6d. upon defendants.

In the outbreak above mentioned sixteen persons were affected, but no fatal cases occurred.

The meat in the sandwiches which remained over when Inspector Wright reached Atherton was at that time in such a condition as to be useless for purposes of examination.

From the Charleville District, in December, 1915, particulars were received through the police that the entire members of a station household, consisting of the owner, his wife, brother, two sons, and a male and female servant, had been taken violently ill with abdominal pains after consuming tinned peaches and ginger beer.

Upon the following day the owner died. As one member of the household, who drank some of the ginger beer but did not eat any of the

peaches, was the only person who remained unaffected, it was assumed that the peaches were responsible for the trouble, which was set down as "ptomaine poisoning."

No mention was made of any other articles of food or drink having been partaken of, and it may have been that the two articles specifically mentioned and held responsible for the trouble formed portion only of a regular meal and were not the sole items.

The investigation was not continued upon the Department being advised that a medical man had certified the owner's death to be due to heat apoplexy, and that no further ill-effects had been experienced by the other members of the family and staff.

It is not often that canned fruits are blamed for causing "ptomaine poisoning," and so far as I am aware there is no case recorded amongst British or Continental food poisoning outbreaks in which fruit, canned or otherwise, has been held responsible.

In the early parts of the present year a paragraph was observed in a Brisbane daily paper to the effect that the wife, sister-in-law, and infant child of a resident in the vicinity of Charleville were suffering from ptomaine poisoning caused through eating sardines.

Upon the Charleville police being communicated with, it was ascertained that two tins of sardines had been purchased by the mother from a local store, one of which was opened upon the following morning and consumed for breakfast by the two ladies and infant. About two hours later alarming symptoms manifested themselves, and the two ladies commenced vomiting and became very ill. Shortly afterwards the infant was attacked, and a medical man was summoned.

Dr. A. W. Fox, who attended the cases, pronounced the trouble to be ptomaine poisoning, caused by the sardines.

At the Department's request, the two tins connected with the affair were secured and forwarded to Brisbane. Upon arrival, it was found that neither of the tins, which were branded "Smoked Sardines in Oil, packed in Stavanger, Norway," bore the packer's name. One tin was empty, while the other was unopened, but had a small aperture at one end, from which the oil contents had leaked out, soaking the paper in which the parcel was wrapped. Judging from the appearance of this tin, an attempt had been made to open same by means of the key which is usually supplied with these goods, but as the tag had been turned in the act it had evidently broken off short and the attempt had been abandoned. Sufficient force had, however, been used to force the joint between the lid and the body of the tin, with the result that the rubber band was torn and a small aperture caused, through which air gained access. The contents were, therefore, of no value for purposes of either chemical or bacteriological investigation. A request was then made for further samples of the same brand of fish, and in due course half a dozen tins purchased from the same vendor were forwarded to the Department. These samples of sardines, upon arrival, were examined and found to be in excellent condition. It was apparent, however, from the appearance of the containers, that they were from more recent stock than were the specimens first received and which



were alleged to have been responsible for the illness of the persons who consumed the contents of one. All of the individuals attacked recovered, and no further cases of a like nature were reported from this district.

A Brisbane daily paper contained, in April of this year, an item in its columns headed—

*“Factory Girls Poisoned—Caused by Eating Tinned Fish.”*

The article alleged that twenty girls employed in a Southern jam factory were being treated in a hospital for ptomaine poisoning caused by fish purchased from a dealer and consumed by them for lunch. Being desirous of ascertaining the brand and description of the particular fish involved, the Department got into communication with the health authorities of the city concerned and was informed, in reply, that tinned fish had not been the cause of the sickness of the girls at the factory in question, but that they were taken ill after eating fried fish which an itinerant purveyor had sold to them at the door at lunch time.

The weather, it was stated, on the day the fish was brought from the market, was such as would be likely to have a detrimental effect on the food.

Another case in which ptomaine poisoning was attributed to the consumption of sardines came to the Department's notice per medium of the Press in the early part of the summer. The victim, who in this case was a workman employed at a Brisbane factory, was alleged to have been taken violently ill shortly after having eaten a tin of fish with his lunch, and to have been removed to the General Hospital suffering from “ptomaine poisoning.” Upon investigation, it was found that the patient had not consumed sardines or tinned food of any description, but that he and two other members of his household had been seized with vomiting and diarrhoea shortly after partaking of a dish of minced veal which had been prepared on a Monday morning from the remains of Sunday's joint. The only member of the household who was not similarly affected was a daughter who had not eaten the mince, but who had, with all of the others, partaken of the freshly cooked joint of veal at Sunday's dinner. The evidence obtained in this case would appear to point conclusively to the veal used in the preparation of the mince being responsible for the trouble, the remains of the joint having in all probability become decomposed or contaminated during the period that elapsed between the time of storage after Sunday's dinner and the subsequent mincing on the Monday morning. The facts that no ill-effects followed the consumption of the hot joint on Sunday, that all of those persons who ate the mince prepared from the cold joint on Monday morning became ill, and that those who consumed the most mince were the most seriously affected, would appear to confirm this theory. As to whether the mince actually became infected in its passage through an unclean machine, or was in bad condition previous to being so treated, could not be determined, as specimens were not available. All the patients recovered.

The foregoing are typical examples of a few of the numerous cases of sickness attributable to food of various kinds which have come to the Department's notice during the year.

Almost invariably information concerning such occurrences reaches the Department in an indirect manner, and after so long a period that it is not possible to definitely fix the responsibility or obtain specimens in a condition fit for examination by a chemist or bacteriologist.

Notification of sickness attributable to food is not compulsory upon either medical practitioners or the public, and, in the absence of information which might be furnished were it so, it is not possible to define with accuracy the precautionary measures that should in each particular case be adopted to safeguard the public health. Cases of this description are usually indiscriminately classed as “ptomaine poisoning” by the parties affected, a considerable number of whom do not consult a doctor when they become ill, but simply knock off work for a few days, unless they are so bad that they have to be removed to a hospital.

Therefore, apart from the cases that are mentioned in the columns of the Press, there is always a large amount of sickness which never comes before the public or to the notice of the authorities, but which, nevertheless, is responsible for a considerable amount of loss to the families and dependents of those affected as well as to the State. Such cases of sickness occur most frequently during the summer months, and, although they vary in character and intensity, appear to have certain well-defined common characteristics. If adequate measures are to be taken to prevent the recurrence of sickness due to the consumption of unsound, contaminated, and poisonous food material, it is absolutely necessary that all cases of such shall be reported to Health Authorities and the Department in order that they may promptly be investigated and studied with the assistance, at an early stage, of the chemist and bacteriologist.

#### LABELLING.

No question during the entire year has demanded more constant attention or concentrated effort to control than that of the labelling of food and drugs for sale.

Any wholesome food or drug product can lawfully be offered for sale in this State provided that it is properly described, and contains no false or misleading statement, design, or device upon the label.

So far as local manufacturers and packers are concerned, these conditions are being fairly well complied with, and as each year passes further improvement is observed all along the line.

Fictitious firm names have disappeared from Queensland labels. Local products are offered under their true description, and are as highly esteemed under same as they were when offered under a foreign title. Statements of weight and measure of contents of packages are plainly made, declaration of added colourings, flavourings, and preservative substances are legibly stated upon the main face of the label, so that the purchaser has confronting him the information which he is entitled to receive.

In the case of imported lines, however, it is not always possible to secure the prompt compliance with the labelling conditions prescribed in the Health Acts and Food and Drug Regulations as is obtained from local firms, owing largely to the fact that being under no such



system of control in their own countries they are inclined to resent such requirements from abroad. Whilst making due allowance, however, the Department is compelled, in common fairness to the business people of its own State, to insist upon labelling conditions being observed by over-sea traders, a large proportion of whom already realise that from a business point of view they have nothing to gain by running counter to the law upon the subject.

Canadian and American firms make no demur when called upon to make alterations, and Japanese packers, by their inquiries, appear to realise that correct labelling is an essential.

During the past year numerous inquiries from various quarters of the world have been made concerning the food and drug laws and the labelling requirements of the State of Queensland, which would appear to indicate the intention at no distant date of the parties concerned doing business with this market.

SPECIAL.

In addition to their routine duties during the year, the food inspectors have performed special work in connection with the examination of stores supplied to His Majesty's transports and of food supplies at military encampments.

Since the establishment of canteens by the Military Authorities and the inauguration of the White City scheme at Enoggera Camp, matters

in the food line at the various encampments have reached a high state of perfection, and those responsible are to be congratulated upon the improvements which have been effected in such direction during the past few months.

Previous to the Military Authorities assuming control of the food situation; the state of affairs existing was unsatisfactory and insanitary, and in the interests of the health of the troops the closing down of the numerous ramshackle shanties which were catering for the men at the camp was an essential measure.

By arrangement with the Principal Medical Officer—Lieutenant-Colonel McIntosh—the Department's officers make periodical visits to the canteens and stores at the various camps, and samples of various food lines are removed for analysis as occasion demands.

In concluding my report for the fiscal year 1915-16, I would draw attention to the fact that the work during this period has been of an unusually exacting character owing to staff changes and shortage and other causes due to war conditions, and it affords me much pleasure to record an appreciation of the manner in which the inspectors have performed their duties.

I have, &c.,

H. W. PETHERICK,

Chief Food Inspector.

The Commissioner of Public Health.

RECAPITULATION.

HEADQUARTERS.

Class of Premises.	Inspections.	Remarks.
Bakehouses .. .. .	400	Includes cake and biscuit factories and bread weighing
Butchers .. .. .	263	Includes small goods and meatworks
Beverage factories .. .. .	282	Includes breweries, aerated water and cordial factories
Chemists' shops .. .. .	159	Includes wholesale and retail establishments and patent medicine vendors, barbers
General stores .. .. .	916	Includes large and small grocers
Hotels .. .. .	1,738	Includes town and country clubs (liquor testing)
Markets .. .. .	43	Includes fish, fruit, and vegetable markets and cold stores
Refreshment-rooms .. .. .	575	Includes fruit and confectionery
Restaurants .. .. .	222	Includes fish and oyster saloons, boarding houses and pie stalls
Special .. .. .	322	Includes auction-rooms, river wharves, night patrols, and cold stores
Warehouses .. .. .	377	Includes bond stores and wholesale distributors
Food factories .. .. .	225	Includes meal mills, condiment, preserving, curing, canning, and confectionery works, ice and ice-cream factories
Milk shops .. .. .	138	Includes dairies, milk carts, and shops
TOTAL .. .. .	5,660	

TOWNSVILLE.

Class of Premises.	Inspections.	Remarks.
Bakehouses .. .. .	45	Includes bread weighing
Beverage factories .. .. .	37	Includes aerated waters and cordial factories
Butchers .. .. .	32	Includes small goods rooms
Chemists' shops .. .. .	16	Includes small goods rooms
General stores .. .. .	81	Includes large and small grocers, etc.
Hotels .. .. .	90	Includes wine and spirit merchants (liquor testing)
Refreshment-rooms .. .. .	103	Includes fruit and confectionery
Restaurants .. .. .	47	Includes fish and oyster saloons, boarding-houses, and pie stalls
Special .. .. .	34	Includes auction-rooms, wharves, night patrols, and cold stores
Warehouses .. .. .	14	Includes bond stores and wholesale distributors
Food factories .. .. .	19	Includes confectionery works and ices and ice-cream factories, dairies, milk carts, etc.
TOTAL .. .. .	518	



CAIRNS.

Class of Premises.	Inspections.	Remarks.
Bakehouses .. .. .	37	Includes bread weighing
Butchers .. .. .	46	Includes small goods rooms and slaughter-yards
Beverage shops .. .. .	50	Includes aerated water and cordial factories
Chemists' shops .. .. .	15	Retail establishments
General stores .. .. .	130	Includes large and small grocers, etc.
Hotels .. .. .	143	Includes liquor testing and general inspection
Refreshment-rooms .. .. .	79	Includes fruit and confectionery
Restaurants .. .. .	25	Includes fish and oyster saloons and boarding-houses
Special .. .. .	20	Includes auction-rooms and wharves
Warehouses .. .. .	25	Includes bond stores and wholesale distributors
Food factories .. .. .	48	Includes ices and ice-cream factories, milk carts and shops
TOTAL .. .. .	618	

CENTRAL DISTRICT.

Class of Premises.	Inspections.	Remarks.
Bakehouses .. .. .	61	Includes cake and biscuit factories
Butchers .. .. .	72	
Beverage factories .. .. .	85	Includes aerated waters, etc.
Chemists' shops .. .. .	20	Retail only
General stores .. .. .	206	Includes wine and spirit merchants
Hotels .. .. .	175	
Markets .. .. .	5	Includes auction-marts
Refreshment-rooms .. .. .	160	Includes fruit and confectionery
Restaurants .. .. .	19	Includes fish and oyster saloons
Special .. .. .	20	Wharves, slaughter-yards, etc.
Warehouses .. .. .	9	Includes bond stores and wholesale warehouses
Food factories .. .. .	4	Breweries and wineries
Milk carts, etc. .. .. .	29	Dairies, milk shops, milk carts
TOTAL .. .. .	865	





## APPENDIX H.

## REPORT ON ANTI-MOSQUITO OPERATIONS.

In connection with the campaign against mosquitoes, the most noteworthy feature of the year was the rescission, on the 26th May, by His Excellency the Governor in Council of the Order in Council dated 12th September, 1912 (whereby it was declared that mosquitoes were noxious and that certain measures therein set down for the destruction and prevention of the breeding of mosquitoes should be adopted by the owners and occupiers of all premises within the defined portions of the Metropolitan Area of Brisbane therein specified), and the approval by His Excellency of a set of regulations issued under the title of "The Rat and Mosquito Prevention and Destruction Regulations of 1916," which were published in the *Government Gazette* of 26th May, 1916, and which took effect from that date over the entire State.

Part IV. of these Regulations, which is the portion dealing with anti-mosquito measures, is an amplified repetition of the old Order in Council, but in Part V. (General) it is directed that the Local Authority is to supervise the work of mosquito destruction and prevention, and for that purpose shall employ at its expense such staff as the Commissioner shall direct, whilst the Local Authority is made responsible for the treatment of lands, roads, sewers, and premises under its control in precisely the same manner as is the owner and occupier in respect of private premises.

Upon the *Gazette* announcement appearing, the two officers employed by the Department upon survey work in connection with *Stegomyia* eradication in the Brisbane Metropolitan Area were given notice, and on 10th June left the service.

The following is a summary of the work performed by them in connection with house-to-house visitation in this section from the beginning of the fiscal year to the time of their departure:—

FIRST INSPECTIONS.			No.
Premises visited	..	..	5,896
Tanks found screened	..	..	1,532
Tanks found unscreened	..	..	5,494
Wells found breeding mosquitoes	..	..	135
Horse troughs breeding mosquitoes	..	..	10
Pools breeding mosquitoes	..	..	24
Rubbish accumulations breeding mosquitoes	..	..	75
Barrels breeding mosquitoes	..	..	41
Roof gutters found defective	..	..	46
Surface gutters found defective	..	..	11
Cesspools found defective	..	..	3

RE-INSPECTIONS.			No.
Premises revisited	...	..	6,695
Tanks found screened	..	..	4,985
Tanks found removed	..	..	444
Wells found screened	..	..	105
Wells found filled in	..	..	10
Roof gutters put right	..	..	39
Surface gutters put right	..	..	8
Rubbish accumulations removed	..	..	69
Pools filled in	..	..	18
Barrels removed	..	..	32
Drains cleaned out	..	..	3
Horse troughs	..	..	10

In the performance of this work a total of 4,425 notices were served upon owners and occupiers of the properties and premises concerned.

H. W. PETHERICK.



APPENDIX I.

INFECTIOUS DISEASES NOTIFIED DURING THE YEAR.

DISTRIBUTION OF CASES OF INFECTIOUS DISEASES NOTIFIED FROM THE BRISBANE METROPOLITAN AREA,  
1ST JULY, 1915, TO 30TH JUNE, 1916.

Local Authorities.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Phthisis.	Ankylostomo- miasis.	Infantile Paralysis.	Cerebro- Spinal Meningitis.	Chickenpox.	Malaria.	Total.
Brisbane .. .. .	86	10	2	138	21	74	..	1	23	46	17	418
South Brisbane .. .	44	16	1	89	9	43	..	1	6	49	4	262
Balmoral .. .. .	10	6	..	17	2	4	..	..	2	7	1	49
Belmont .. .. .	1	..	..	..	..	..	..	..	..	..	..	1
Coorparoo .. .. .	16	1	..	10	1	3	..	..	1	2	..	34
Enoggera .. .. .	25	2	..	30	1	6	..	..	34	4	1	103
Hamilton .. .. .	3	..	2	14	1	9	..	..	2	1	..	32
Ithaca .. .. .	23	4	..	41	1	14	..	..	5	40	3	131
Indooroopilly .. .	1	..	..	..	..	1	..	..	1	..	..	3
Kedron .. .. .	8	2	..	5	5	1	..	..	4	2	..	30
Sandgate .. .. .	6	..	..	2	1	2	..	..	1	12	..	24
Sherwood .. .. .	3	1	..	9	..	2	..	1	..	8	..	24
Stephens .. .. .	16	..	..	20	3	3	..	..	3	1	1	47
Taringa .. .. .	3	1	..	14	..	3	..	..	1	2	..	24
Tingalpa .. .. .	..	..	..	..	..	..	..	..	..	..	..	..
Toombul .. .. .	8	2	1	22	6	4	1	1	3	9	2	59
Toowong .. .. .	10	1	..	28	2	11	..	..	2	20	..	74
Windsor .. .. .	17	..	2	37	4	12	..	..	5	12	1	90
Wynnum .. .. .	2	3	2	19	..	4	..	..	1	..	2	33
Yeerongpilly .. .	1	..	..	5	2	7	..	..	..	..	..	15
Total .. .. .	283	49	10	500	59	203	1	4	97	215	32	1,453
1st July, 1914, to 30th June, 1915	296	41	39	691	74	222	1	207	7	201	..	1,779

APPENDIX J.

INFECTIOUS DISEASES NOTIFIED FROM OUTSIDE METROPOLITAN  
AREA.

FROM 1ST JULY, 1915, TO 30TH JUNE, 1916.

Disease.	Notifications Received.
Typhoid Fever .. .. .	1,447
Diphtheria .. .. .	1,066
Erysipelas .. .. .	45
Membranous Croup .. .	1
Puerperal Fever .. .. .	18
Phthisis .. .. .	262
Scarlet Fever .. .. .	264
Cerebro-Spinal Meningitis .. .	20
Ankylostomiasis .. .. .	21
Relapsing Fever .. .. .	1
Infantile Paralysis .. .. .	23
Chicken-pox .. .. .	329
Malaria .. .. .	47
Dysentery .. .. .	3
Total .. .. .	3,547

[Price, 2s. 6d.]

By Authority: ANTHONY JAMES CUMMING, Government Printer, Brisbane.

